CLINICAL OUTCOME OF POST PARTUM INTRA UTERINE CONTRACEPTIVE DEVICE

DISSERTATION SUBMITTED FOR

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(OBSTETRICS & GYNAECOLOGY)

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THE TAMILNADU

DR.M.G.R. MEDICAL UNIVERSITY

CHENNAI, TAMILNADU

BONAFIDE CERTIFICATE

This is to certify that the dissertation entitled **"CLINICAL OUTCOME OF POST PARTUM INTRA UTERINE CONTRACEPTIVE DEVICE"** is a bonafide record work done by **Dr.S. RAMYA JEYALAKSHMI** under my direct supervision and guidance, submitted to the Tamil Nadu Dr. M.G.R. Medical University in partial fulfillment of University regulation for M.S Branch II – Obstetrics & Gynaecology.

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CERTIFICATE FROM DEAN

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DECLARATION

I, **Dr.S. RAMYA JEYALAKSHMI** solemnly declare that the dissertation titled **"CLINICAL OUTCOME OF POST PARTUM INTRA UTERINE CONTRACEPTIVE DEVICE"** has been prepared by me. I also declare that this bonafide work or a part of this work was not submitted by me or any other for any award, degree, diploma to any other University board either in India or abroad.

This is submitted to The Tamilnadu Dr. M. G. R. Medical University, Chennai in partial fulfillment of the rules and regulation for the award of M.D degree Branch – II (Obstetrics & Gynecology) to be held in April 2015.

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Date :

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INTRODUCTION

More than 100 million couples all around the world in developing nations wants to avoid pregnancy, but they are not using any contraceptive methods.15.8% is the estimated unmet need of contraception. More than half of them wish to avoid pregnancy. Studies all over the world prove that adverse maternal and perinatal outcome are directly related to closely spaced pregnancies.

USE OF IUCDS AMONG WOMEN OF REPRODUCTIVE AGE IN VARIOUS COUNTRIES

Developed Countries	:	nearing 5%
Sub Saharan Africa	:	nil
Oceania	:	nil
Latin America & Caribbean	:	6%
Near East & North Africa	:	8%
China: highest	:	>60%
Eastern Europe & Central Asia:		10%
Other Asian countries	:	>12%

The government of India is committed towards provision of quality spacing services in family planning. Recommendation and issuing CuT380A from 2002, with an effective protection of 10 years. But yet the acceptance rate is below 2 % out of the total couple protection rate of 48.5 % for the use of any modern contraceptive method. The objective of National population policy 2000 is to achieve the unmet needs for contraception. Stabilisation of population, gender and democratic balance through universal access to equitable, affordable and quality healthcare, which is responsive to the needs of the people is the objective of national rural health mission and RCH II launched in 2005.The latest NHFS3 data shows an unmet need of 6% for spacing methods with a marginal decrease of 1 % in the last 7 years. Contraceptive prevalence rate in India is 56.3%.Unmet need for family planning as high as 13%.

UNMET NEED FOR CONTRACEPTION

Nearly 27% of childbirth in India is occurring <24 month after a previous delivery. 61% of child birth is occurring at an interval less than that what is recommended, i.e less than 36 months.

During the first year of postpartum period the unmet need of contraception is extremely high and appropriate ideal contraception at that period is essential. 8%of recently delivered women desire next child in 2years, postpartum family planning programmes are implemented to help women ,by an effective and reversible family planning method.

POSTPARTUM FAMILY PLANNING SERVICES

Postpartum family planning services are defined as family planning services provided during extended postpartum period. Every country health and family welfare department is taking effort to reduce MMR. Birth spacing is a life saving decision for mother and nation. Timing of spacing birth is the first intervention in creating a healthy family. Postpartum insertion of CU-T is a golden opportunity for a couple to achieve adequate spacing of pregnancy, limiting families, unsafe abortions. 1:8 death of mothers and 1:5 mother death in Africa is attributed to unsafe abortions. These preventable death if averted help in achieving millennium developmental goal.

NATION WIDE PPIUCD SERVICES

It is the right time to implement a large scale revitilisation effort. Janani suraksha yojana scheme launched to promote institutional delivery among poor pregnant women and its dramatic success, rise in the institutional deliveries is ongoing.16 states Delhi, Madhypradesh, Maharashtra, Rajasthan, Haryana, Punjab, Bihar, Gujarat, Orissa, Westbengal, Tamilnadu, Karnataka, Andrapradesh, Chattisgarh, Megalaya, Assam all around the nation.

Training projects had begun already. Skilled training is better than basic training for doctors and paramedicals to acquire adequate detailed knowledge on IUCD so that provision of service is complete, with mandatory quality. According to NPP-2000, median term objective is to bring the total fertility rate to replacement level, NRR=1.

In the present study the safety, efficacy, continuation, follow up of CU-T inserted in postpartum period is studied in 500 mothers delivered at Govt Rajaji hospital.

The study was conducted in Govt Rajaji hospital obstetrics block. Antenatal mother who come for delivery was councelled, informed consent obtained. Strict Asepsis was adopted while insertion.

REVIEW OF LITERATURE

METHODS OF POPULATION CONTROL

1. contraceptives preventing fertilisation

2. emergency contraceptives preventing implantation

3. abortion & medical termination of pregnancy

1.4%increase in annual rate of population around the world. In India it is 1.9%.

Even small increase in population has a very big impact on global environment.

Healthy Spacing of Pregnancy (HSP)

Every mother and health care worker should know these facts

1. After a child birth, a woman should wait at least two years (maximum upto five years) before becoming pregnant next time to reduce the risk of adverse maternal, perinatal and infant outcomes. Healthy birth-to-birth interval is about 36 months, or three years between children.

2. After an abortion (either spontaneous or induced), a woman should wait at least six months before her next conception to reduce the risk of adverse maternal and perinatal outcomes.

3. Adolescents girls must delay first pregnancy until age 18 to reduce the risk of adverse maternal, perinatal and infant outcomes.

Various studies performed around the world proven the fact that adverse maternal and perinatal outcomes are related to closely spaced pregnancies. The risk is very high particularly for women who conceive very soon after giving birth or immediately spontaneous or induced abortion.

 A baby delivered after a short birth interval has high chances of being

 preterm

small for gestational age

 high neonatal and perinatal mortality

 A mother who is becoming pregnant verysoon following a previous birth or spontaneous or induced abortion faces higher risks of:

 anemia

 abortion

 premature rupture of membranes

 maternal mortality

 Teenage pregnancy (when the mother is younger than age 18) is associated with an increased

Risk of obstetric complications mothers and newborns compared to women age 20 to 24 years old. Adolescent mothers aged 15—19 have twice higher maternal mortality. Girls less than fifteen years have five times the risk of maternal mortality.

POLICY proposed by GOVT of INDIA

 The approved method of immediate postpartum IUCD is insertion of CU-T380A.

1. After obtaining informed consent, prior to which proper counselling is mandatory.
2. Counselling must be given to the clients during the antenatal period, in early labour or immediate postpartum.

   Counselling for informed consent is not favourable during the active phase of labour.

3. The PPIUCD can be placed immediately following delivery of the placenta, during caesarean section or within 48 hours following childbirth.
4. The IUCD must be inserted only by trained personnel.
5. Services provided must be adhering to national standards.
6. PPIUCD services is carried out in places where delivery services are provided.

STANDARDS OF SERVICES

Standards of care which is to be maintained.

1. Mother is counselled about the advantages, limitations, effectiveness, side effects, complications, warning signs.
2. The procedure is explained in a simple manner.
3. Proper screening and clinical situations fitting into the medical eligibility criteria.

   Screening should take place in the antenatal period, as well as immediately prior to insertion.
4. Mother should be explained about the alternative methods if she is not fitting into the medical eligibility criteria

5. Recommended aseptic precautions should be followed before successful placement.
6. Long instrument Kellys forceps should be used for proper insertion of IUCD into the fundus.
7. The provider must maintain adequate records regarding PPIUCD insertions and services.
8. Provided oriented services.

Contraception and litigation.

1. good communication with the clients.
2. documentation is vital.
2. good clinicians records and proper history taking.
3. proper plan for follow up.
4. documentation of all records.

Advantages for the service provider or the service delivery site:

1. Very sure that the women is not pregnant.
2. Saves time as procedure is carried out on the same table of delivery.

3. Additional examination and separate clinical procedure is not needed.
4. Requirement of minimal additional instruments, supplies and equipment
5. Convenience for clinical staff .

LIMITATIONS OF PPIUCD:

The limitations that are specific of an IUCD placed in the immediate postpartum period include:

 Increased rate of spontaneous expulsion

 Spontaneous expulsion rates for PPIUCD that is mainly determined by the skill of the provider and technique of insertion. The rates are wider ranging from 10 to 14%.

IF meticulous insertion technique is followed the expulsion rate can be reduced to 2 to 5%.

 Spontaneous expulsion can be reduced by ensuring that the IUCD is placed high in the uterine fundus, ensuring that the IUCD is not dislodged during removal of the instrument and placing the IUCD immediately following delivery of the placenta.

- Expulsion rates are highest during the first 3 months following insertion.
- Risk of Pelvic infection (endometritis or salpingitis) if IUCD is placed when the woman has local infection , (chorioamnionitis, postpartum endometritis or puerperal sepsis)
- Perforation of the uterus is not reported due to thickness of post partum uterus and Kellys forceps is used.

The other limitations of the PPIUCD are the same as the interval IUCD.

- Menstrual changes, which are common in the first 3 months but likely to lessen after 3months (it is expected that these would be less in lactating women):
- Longer and heavier menstrual periods
- Bleeding or spotting between periods
- More cramps or pain during periods
- Does not protect against sexually transmitted infections (STIs

POTENTIAL ADVERSE EVENTS AND HEALTH RISKS ASSOCIATED:

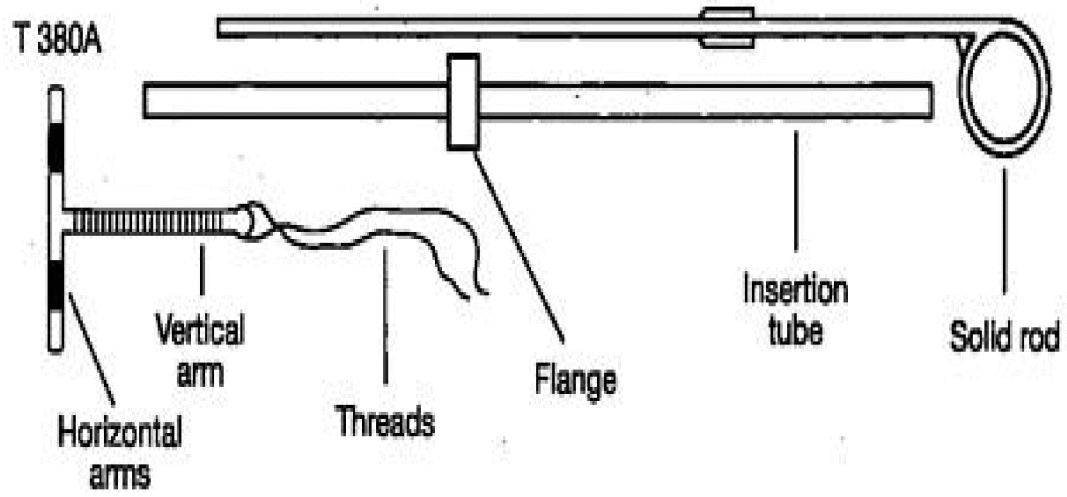
Many potential health risks and adverse effects associated with the immediate PPIUCD.

Lack of well-designed, peer reviewed studies of the immediate PPIUCD leaves important unanswered questions about exact complication rates and variables as timing and technique of insertion. Certain conclusions which was drawn based

1. Uterine perforation—Perforation of the uterine wall during postpartum IUCD insertion has not been reported. No results till now reported for perforation.
2. Expulsion - The most common cause of IUCD failure is immediate expulsion.

Factors influencing expulsion is the skilled insertion technique, proper timing of insertion. Over all the rate of spontaneous expulsion is high for immediate insertion of PPIUCD when compared to interval or following spontaneous abortion, or non relating to pregnancy.

COPPER T 380 A



When comparing the 10 mts immediate post placental insertion and less than 48 hours insertion, the delayed 7 days insertion has higher failure rate.

 Infection-The risk of upper genital tract infection among IUCD users is <1% which is very much lower than what was thought.

- This minimal risk is highest within the first 20 days after IUCD insertion, and is thought to be related to either insertion technique (due to lack of proper infection prevention practices) or pre-existing infection rather than to the IUCD itself.
- After the first 20 days, the risk of infection among IUCD users appears to be comparable to that among non-IUCD users.8
- Postpartum insertion appears to have no significant effect on the risk of genital tract infection.

Contraceptive failure:

1. combined pills 0.3%
2. progesterone only pills 0.5%
3. copperT380A 0.5% to 1%

4. implants 0.05% to 1%

5. injectables 0.3%

6. female sterilization 0.5%

7. male sterilisation 0.5%

8. periodic abstinance 25.3%

9. calender method 9%

10. ovulation 3%

11. condoms

    Female condoms5%

    Male condom 2%

Women >30 yrs are less likely to have failure than young women. Teenagers have very high failure experience.

Highly motivated subjects and good support from the promoters yield the lowest expected failure rate.

Failure rate depends on the use effectiveness and method effectiveness.

Using a method compatible according to the individual and her life style, good partner co-operation is essential for achieving high contraceptive efficacy.

CONTRACEPTION

A method adopted by a couple, which prevents conception without affecting sexual act.

Two broad groups:

Temporary &Permanent

1. when there is protection until they use the method it is temporary. Return of fertility is assured.
2. Irreversible method/surgical method.

Factors influencing control of fertility:

These factors are taken into consideration before councelling any couple for any method those are age, education, socioeconomic status, religion.

THEORITICAL EFFECTIVENESS

Pearl index:

RAMOND PEARL,

No of pregnancies per hundred years of exposure

Pregnancy rate per 100 WYRS

$$= \frac{\text{Total accidental pregnancies} \times 1200}{\text{Total month of exposure to unindented pregnancies}}$$

Life table analysis:

Pregnancy probability when using any method during a fixed period. Acummulative failure rate.

Total fertility rate:

Average number of children a women will have assuming the current age specific birth rate.

Extended use of effectiveness is also measured.

CHALLENGES WHILE IMPLEMENTIG PPIUCD:

COUNSELLING:

Clients need proper motivation. Since it was an interventional procedure, the family members were also to be explained about the method. informed, written consent from the patient is obtained .It took time for counselling a primigravida as she was totally unaware of the family planning method, fear about pin ,insertion of an agent in to the uterus was questioned invariably. Good wrapout was made, proper education about follow up how to feel for the thread, instruction about complications.

Record maintenance

Consent obtained in the case sheet, registration of delivery after insertion, follow up register.

Follow up of clients

Phone number and address of the clients were obtained. They were contacted through phone and follow up strengthened.

METHODS OF CONTRACEPTION:

1. Natural method : behavior methods like calender based, abstinence, fertility awareness like billings ovulation method, withdrawal, lactational ammenorhoea method{LAM}.

2. Barrier method:

    1. condoms

    2. cervical cap

    3. diaphram

    4. female condom

    5. spermicidal.

3. Hormonals: combined OCP, POP, Injectables, Depot, implants

4. Anti estrogen:centchroman

5. Sterilisation :tubal ligation, vasectomy

6. Emergency contraception :OCP,CU-T,Yuzpee regimen.

INTRAUTERINE CONTRACEPTIVE DEVICES

Even from ancient times, various materials have been used &introduced into the uterus of animals and human beings. In nineteenth century stem pessaries used for treatment of infertility and correction of position of the uterus.

In 1909 Richard Richter, a German physician first introduced contraceptive device which was ring shaped and was made of silkworm gut.

In 1929, Ernst Grafenberg in Germany first used IUCD with ring of silkworm gut & silver wire.

Ota ring used in Japan was made of gold &gold plated silver.

IUCD is one of the commonly used reversible method. Among five married couples one use IUCD. Lack of correct and complete information

The first device with medication was developed by Jacine Zipper and Howard Tatum in 1969.Copper wire wrapped around the T and 7 devices. In order to reduce bleeding &pain surface area made smaller. It was first came into the market in1972.

First generation multi load Cu 250 with 250mm^2 copper wire wound over the vertical rod.

Second generation –Multi load Cu 375, Nova –T, Cu-T 380 Ag with silver core, which reduces the chance of fragmentation, hence life span is increased.

In 1973,Hormones containing IUD –Progestrasert was marketed, releases progesterone at the rate of 65mcg/day-effecive for one year. Longer acting levonorgesterol releases at rate of 20 mcg with effect for 5 years.

Cu-T with Tranexemic acid /epsilon aminocaproic acid have been tried. In China and Mexico IUCD is very popular.

Classification of IUCD: Three types

Inert : Lippes loop, ota ring

Copper releasing: CU7,Cu-t 200,Multiload Cu375,Cu 380 A,Cu-T 380AG,Nova t.

Hormone releasing IUCD: Progestrasert, LNG.

Lippes loop: Polyethylene impregnated with Barium sulphate.

CU-T 380 A:

Marketed since 1982, by population council of USA. T-shaped, made of polyethylene with barium sulphate. It is radio-opaque. Copper wire on the vertical stem with two 33mm^2 copper sleeve in each of the two Transverse arms life span 10yrs.the wire in the 380Ag has silver core. In the 380s the copper sleeves are placed at the end of arms and recessed into the plastic. Cu-t is widely used in china and India.

SELECTION OF IUCD

1. Copper containing IUCD are more appropriate when compared to inert devices like lippes loop.
2. Newer devices CU-T380A,CU-T220C,MLCU375,NOVA-T are more effective with longer duration of action than older devices like CU T200,CU-7.

3. Levonorgesterol containing IUCD is a choice in women with pain and bleeding problems.

4. Packed and pre sterilized are preferred.

Mechanism of action

Cu releasing IUDs impedes sperm transport, inhibit the capacity to fertilise ova.

It produces inflammatory foreign body reaction.

Prostaglandin levels are increased

Numerous polymorphs, giant cells, mononuclear cells, plasma cells, macrophages appear in the endometrium.

These cells phagocytose the sperm and ovum preventing fertilisation.

It makes the endometrium inhospitable for implantation of blastocyst.

Postcoital insertion of CuT prevents implantation.

Cu also interferes with the enzymes in the endometrium, glycogen metabolism, oestrogen uptake by the mucosa.

Cu is also toxic to sperm

Sperm motility, capacitation, survival are affected by the biochemical changes in cervical mucus caused by Cu.

It causes No systemic or hormonal changes.

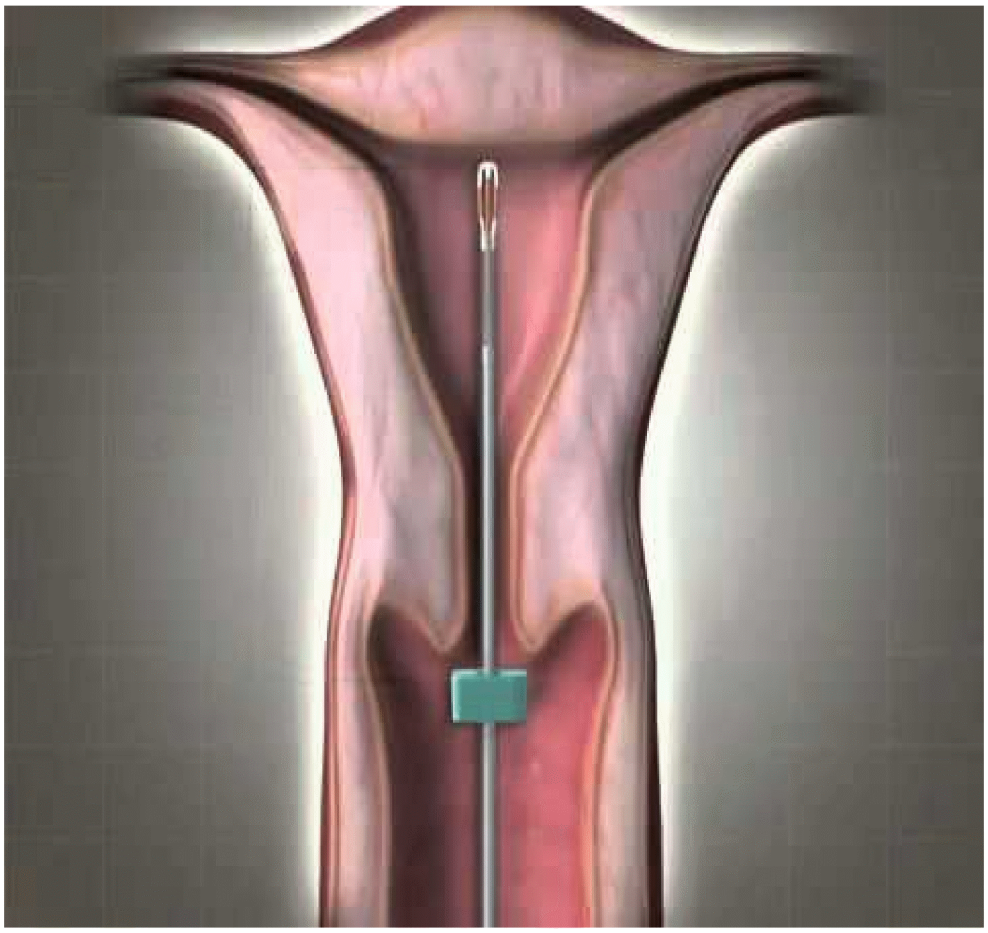
IUDs containing progesterone prevent sperm passing through the cervical mucus.

More recent studies suggest that, IUDs prevent pregnancy by preventing fertilisation.

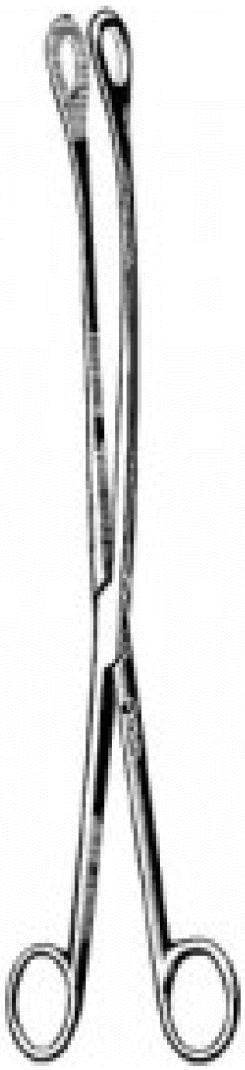
Technique of insertion

The woman is put in lithotomy position. bimanual &speculum examination is done. Vagina is cleared with antiseptic solution&povidone iodine. Cu-T with the plunger is removed from the sterile packet. The horizontal arm of the device is held by Kelly's forceps. Introduced into the uterine cavity till you feel the fundus. Withdrawal technique can also be employed. Following insertion the person is asked to feel the thread in the vagina.

PLACEMENT OF COPPER T IN FUNDUS



KELLY'S INSERTER



Directions for use

The client is educated about the usage.

1. IUCD has no interference with the sexual performance
2. To detect expulsion during monthly cycles, she should feel the threads.
3. There is no protection against STDs and HIV.
4. Menstrual cycles may show increased amount of flow in the next 2 to 3 cycles.
5. Woman is advised to come for follow up at 4^{th} week.

Warning signs

Woman is advised to come to hospital immediately if she has doubt of expulsion, chronic pain, purulent vaginal discharge.

Indications for removal

1. Expiry of the life span
2. Severe pain/ cramping pelvic pain
3. Abnormal bleeding

4. PID
5. Missed or displaced
6. Pregnancy
7. Cervical or uterine malignancy
8. Willing to conceive.

Advantages

1. Life span of 10 years
2. One time motivation
3. Does not interfere with sex
4. Cost effective
5. Immediate return of fertility on removal
6. No effect on breast milk
7. No medicine interaction

Disadvantages

1. Trained personnel for insertion
2. Painful during insertion
3. Bleeding
4. Chance of expulsion
5. No protection against STDs
6. Risk of ectopic

Bleeding

2 to 10 per 100 users

20 to 30% increase in menstrual blood loss

Removal due to bleeding is avoided by good preinsertion counselling and support.

Inter menstrual bleeding /spotting also can occur.

PAIN

Usually due to uterine cramp. It settles within a week. analgesic and nsaids is prescribed. Persistent pelvic pain is due to

abnormal position of the IUCD or uterine perforation, the beginning of expulsion of IUCD, disparity between IUD size and cavitary size, associated PID or ectopic pregnancy.

EXPULSION

May be partial or complete expulsion. Overall rate is 2-8% in the first year. more common in nulliparous women and younger women less than 30 yrs. More with lippes loop than with copper containing devices due to technical fault. Highest incidence during the first 3 month of usage expulsion time is during menstruation especially during the first cycle after insertion. It occurs because of the uterine contraction, disparity in size.

Prevention of expulsion:

1. Proper technique& the skill of the operator.

   IUCD must be placed high in the fundus.

The women should look for the tail by inserting a finger into the vagina following menstruation should check her pads during periods .This must be meticulously followed for first 3 months when the tail is missing she should refrain from intercourse or use

barrier contraceptives until check up to avoid pregnancy. The clinician should try to feel the IUD by inserting a uterine sound. Ultrasonography /X-RAY abdomen with the sound in situ is taken to rule out perforation if the IUCD is partially expulled it should be removed. Replacement by another one of different size is inserted.

VAGINAL DISCHARGE

Leukorrhea due to the foreign body reaction. Accompanying pelvic infection should be suspected.

PERFORATION

Is very less <1 per thousand 3000 insertion. Device may perforate the uterine musculature or enter into the peritoneal cavity. Most perforation occur at the time of insertion. perforation occur without symptoms and remain undiagnosed for a longer time .

INFECTION

It is more common with nulliparous women than with multiparous. Risk is higher in first three week after insertion. they may be

1. Infection introduced at the time of insertion.

2.Flaring of undiagnosed or old infection.

3.Fresh STD

4.Increased volume and duration of menstrual flow.

5.foreign body or inflammatory reaction.

MISPLACED IUCD

Condition where the tail of the IUCD is not seen through the os. The causes are:

1.pregnancy, so the uterus is enlarged.

2.thread has curled inside the uterus.

3.perforation of the uterus, the cu-t has burried inside the myometrium, or into the peritoneal cavity.

X-RAY /USG will locate the cu-t.

Abnormal location suggest perforation.

Hysteroscopy is useful for removal in case of perforation a laporatomy is needed

PREGNANCY

1. Occurs in 1 to 3 per 100 women years.

2. USG is done to rule out ectopic, as there is chance of infection, cu-t is visible through the os. The risk of abortion should be explained.

Potential Health Risks

Potential health risks associated with the IUCD, which are uncommon or rare, are discussed below:

Uterine perforation during IUCD insertion is a rare complication which occurs in 0.5 to 1.5 per 1000 insertions and is associated with level of provider's skill and experience. Most perforations are silent and may go undetected.

Expulsion is influenced by the skills and experience of the provider and the timing of insertion. Spontaneous expulsion is

about 2-8 % and is most likely to occur during the first three months after insertion, and during menstrual periods.

Nulliparity, heavy menstrual flow and insertion immediately postpartum or after second trimester abortion increases the chances of expulsion.

Infection following IUCD insertion is less than 1%. This minimal risk is highest during the first 20 days after IUCD insertion, especially if aseptic precautions have not been taken, rather than due to the IUCD itself. If pregnancy occurs with Copper T in situ, there is a risk of spontaneous abortion, sepsis and ectopic pregnancy; however, IUCD is not found to be having any adverse effects on the fetus.

COUNSELLING A CLIENT

A women is to counselled a polite and appropriate manner. Even during her antenatal visits the counseling begins. The choice of her contraceptive method is taken into consideration. PPIUCD- its advantageous are explained. During the first stage of labour, the women are highly receptive for our counseling. Even if not alternately prepared the women on table is highly anxious accepting our words. Mostly, this period becomes the ideal time.

Consent for insertion is obtained from the mother and the guardian.

Medical Eligibility Criteria (MEC)

Medical eligibility criteria address contraceptive use by people with specific medical conditions and people with special needs. Decisions on appropriate contraception must take into account the expressed desires of the individual and the nature of the method. Decisions must be based on informed choice. The reproductive rights of the individual must be considered in any such decisions. To provide quality care in IUCD services it is essential for the provider to screen the clients based on the MEC.

In the WHO system, a woman's eligibility for using a specific method falls into one of four categories, depending on the presence/absence of various condition(s) based on the WHO MEC2004. The categories which have been adapted as per the Indian scenario are as follows:

CATEGORY 1:

Can use the IUCD with no restrictions. Women with conditions that fall into this category include, but are not limited to, the following:

Women having Lactational Amenorrhea after excluding pregnancy.

Immediately following a first-trimester abortion (spontaneous or induced).

Benign ovarian tumors or uterine fibroids with no alteration in the shape of the uterine cavity.

Genital infections with mild nonpurulent discharge (e.g. bacterial vaginosis, candida albicans, trichomoniasis).

Past illness of Pelvic Inflammatory Disease (PID) with a subsequent pregnancy.

Women with breast cancer

Controlled diabetes, hypertension or "uncomplicated" valvular heart disease

H/o smoking

Previous ectopic pregnancy

As emergency contraception

CATEGORY 2:

Can generally use the IUCD (the advantages generally outweigh the risks. Less than 20 years of age, nulliparous, expulsion rate is slightly high.

Following second trimester abortion, chance of expulsion is higher

Less than 48 hours postpartum (because expulsion rate is high).

Have anatomical abnormalities of the reproductive tract that interferes with the insertion.

Women with multiple sexual partners

Have a past history of PID without a subsequent pregnancy

Women who have AIDS, are on ARV (antiretroviral therapy) therapy.

Have complicated valvular heart disease (e.g., artificial shunts, rheumatic heart disease), Infective endocarditis prophylaxis to be given

1st degree &2nd degree UV prolapse

Rectovaginal fistula

(category 2 risk patients are instructed to use condoms)

CATEGORY 3 :

IUCD is not recommended (the risks generally outweigh the advantages); Endometriosis, DUB 48 hours to less than 6 weeks postpartum. (risk of expulsion and perforation is high)

Gestational trophoblastic disease, Ovarian cancer

PLHA, not on ART

3rd degree uv prolapse

CATEGORY 4:

Absolute contraindications

Who are pregnant

Puerperal sepsis

Septic abortion

Cervical and endometrial neoplasm

Pelvic tuberculosis.

Unexplained vaginal bleeding

PPIUCD is inserted by PHC medical officers in category2 & category 1 patient

Category 3 patients &category 4 pts are referred to gynaecologist

Early follow up and additional care is needed for these high risk patients.

Women with AIDS are instructed to use condoms, proper idea is emphasised that there is no protection against STDS.

Acceptance of the post-partum intrauterine contraceptive device by so many women is an endorsement of the ministry of health and family welfare Department to promote and strengthen post –partum family planning services at the national level .A high unmet need for family planning exist in India especially in the post-partum period.

In Cochrane database review 2003, review of safety of postpartum IUCD

- Immediate post-partum insertion of IUCD's appears safe and effective. Advantages are the patient has high motivation, assurance that the women are not pregnant and convenience.

- With the few contraindications to the method, expulsion rates appears to be higher than with interval IUCD's.

- The popularity of immediate PPIUCD's insertion in countries as diverse china, Mexico and Egypt support the feasibility of this approach.

- Early follow up may be important in identifying the expulsion rate.

Operations Research in Peru International Family Planning perceptive 19(1), 19-24, 33.

- 90% of experimental group accepted family planning prior to discharge -25% women with PPIUCD

- At 6 month post-partum 82% were using family planning with 40% using an IUCD.

- Cost per inpatient IUCD $9 COMPARED to $ 24 for interval IUCD.

Gupta A et al –Evaluation of PPIUCD versus Interval IUCD insertion in a teaching hospital of western UP. Total 300 willing women after counselling in antenatal, early labour or postnatal period were inserted PPIUCD after excluding chorioamnioitis ,PROM more than 18 hours, PPH, Pueperalsepsis. Another 150

willing women were inserted Interval IUCD after excluding contraindications all were followed up for 6 months.

Results:

Results were expulsion rate was higher in PPIUCD as compared to interval insertions.(4.3%)P value <0.05.Number of removal of IUCD was almost similar in both the groups(5.6%vs6.0%)but bleeding as cause of removal was significantly more I the interval group.(23.5%vs88.5%).Common causes of PPIUCD removal were social.

CU-T is not inserted between 48 hours and 6weeks for there is increased risk of infection and expulsion.

AIM OF THE STUDY

To analyse the safety, efficacy and complications of immediate postpartum IUCD insertion in women delivering vaginally or by caesarean section in Rajaji Government Hospital, Madurai for a period of one year (Oct 2013 to Sep 2014).

MATERIALS AND METHODS

DETAILED STUDY PROPOSAL

STATEMENT OF PROBLEM

Evaluation of the safety efficacy, complications and follow up of immediate Post-partum IUCD - a longitudinal prospective study

STUDY DESIGN : Interventional

STUDY TYPE **:** Longitudinal prospective study

PERIOD of STUDY : 1 year.

Participants : Patients attending antenatal clinic at around 30-40 weeks of gestation who have given the concern willing to have postpartum IUCD, fitting into the inclusion criteria delivered in GRH through labour natural or caesarean section.

INCLUSION CRITERIA

- Women aged 18 to 45 attending prenatal care
- Women willing for Cu-T insertion.

- Less than 48 hours postpartum
- Following caesarean section.
- Women with controlled diabetes mellitus , hypertension, uncomplicated valvular heart disease

EXCLUSION CRITERIA.

- Obstetric complications like APH, PPH
- Rupture of membranes for more than 24 hrs. prior to delivery.
- Temperature of more than 38C during or after labour.
- Prior caesarean section
- Women with AIDS not on antiretroviral therapy
- Puerperal sepsis
- Women with cervical , uterine, endometrial cancer
- Women with anatomical abnormalities of uterine tract.
- Women with PID, purulent cervicitis, gonorrhoeal/ chlamydial infections.

PRIMARY OUTCOME MEASURES

- Safety
- Cost effectiveness
- Expulsion rate
- Continuation rate
- Immediate and late complications

Methodology :

The study to be conducted in women delivering at GRH, Madurai either through labour naturalis or caesarean section.

- Informed and written consent from the participant.
- Counselling and communication about the needs and method of contraception.
- History, age, parity, gestational age, history of present illness, past medical and surgical history, last menstrual period, antenatal care and visit, past obstetric history,

personal and family history, pregnancy associated complications.

- Investigations - Hb, urea, sugar, creatinine, urine routine and microscopic examination, ultrasonography.

- Cu-T insertion in the participant immediately following vaginal or caesarean delivery. Follow up at 6weeks, 6months, for a period of one year.

Follow up

The recommended follow up schedule is first visit after the first menstrual period or after one month whichever is earlier. Subsequent visits after three months and thereafter once a year. Unscheduled visits as when required. During every follow up the patient is asked for any specific complaint, menstrual irregularities, able to feel for the thread insitu. Physical examination is done during every visit for the confirmation of position of copper T. Removal is done if indicated.

SUMMARY

IUCD'S in the form of Lipeps loop where introduced in the national family welfare programme of the government of India in 1945 .based on the results of clinical trials conducted by the Indian council of medical research in 1972 ,copper T200 was introduced in the programme in 1975 .I 1987 ICMR conducted a comparative study between IUCD 200 and IVCD 380A based on which CuT380A was introduced in 2002 replacing CuT200 in the programme .In India only 1.8% of the married women of reproductive age used IUCD's, though the NFHS has shown an increase in the net CPR 256.3%.

Mechanism of action of IUCD

A presence of foreign body in the uterine cavity renders the migration of spermatozoa difficulty. A foreign body within the uterus provokes uterine contractility an increases the tuber peristolisis, so that the fertilized egg is propelled down the fallopian tube more rapidly and it reach the uterine cavity before the development of chorionic villae and thus unable to implant.

Effectiveness of copper T:

More than 99% effective. Failure rate of 6-8% pregnancies per 1000 women in first year. Effective immediate after insertion, immediate return to fertility once removed. Effective for a period of 10 years can be used as a short term method. Medical eligibility criteria for post-partum IUCD.

Category 1	:	Immediate post placental or post-partum less than 48 hrs after delivery.
Category II	:	Persons with no contraindications.
Category III	:	Within 48 hrs and 4 weeks. Prolonged ROM>18 hrs.
Category IV	:	Immediately after septic abortion, immediately after puperal sepsis, unresolved post-partum haemorrhage.

The advantages of use of PPIUCD are the very effective, reversible and long term method. Safe, convenient and no increased risk of infection and perforation. It does not affect the

quantity and quality of breast milk. It covers the greater number of population. It's safe to provide anaemic women with IUCD.

The limitations are Changes in monthly bleeding pattern. Slightly higher rate of expulsion (8-14%) is seen, but with good technique it can be reduced to (4-5) %, meaning 86-92% retention. It requires special training of providers. PPIUCD and active management of third stage of labour.

The advantages of the insertion are the women are highly motivated at the time of delivery and assurance that the women are not pregnant and convenience of the technical insertion and there are only few contraindications. No increase in IUD expulsion or perforations associated with AMTSL. The use of oxytocis and fundal massage does not increase the risk of IUD expulsion/perforation .Even in the cases when it is insert, 2-48 hrs after the expulsion of the placenta. It can be classified as post-placental 10 mts after the delivery of the placenta, immediate post- partum less than 48 hrs after delivery intra caesarean.

PPIUCD counselling

Counselling for PPFP should ideally occur during AN period, during early latent stages of labour, during hospitalization for ANC complications ,while preparing for scheduled caesarean section during first 2 days postpartum. Complications are changes in menstrual bleeding, menstrual cramping and pain, heavy and prolonged pain, very rare uterine perforation, Expulsion, missing string, severe abdominal pain, ectopic pregnancies and endometritis and salphingitis.

PPIUCD provision and uptake are feasible for both providers and clients. PPFP that includes PPIUCD's has been used in several countries to reinvigorate family planning, especially in light of the health benefits to infants and mothers when the couple avoids a closely spaced or unintended pregnancy. Global efforts are encouraging women to go to health facilities for child birth.

This effort doubles as an opportunity for PPFP, as the PPIUCD can be used for spacing or limiting future pregnancies. Recent programmatic experience demonstrated a lower expulsion

rate of 2% to 6% as compared with 10%to15% previously reported in the literature. Effective implementation involves service strengthening that includes champions of PPIUUCD's and training of providers who counsel women and those who attend deliveries.

RESULTS

TABLE 1

AGE DISTRIBUTION

AGE	NO OF CASES	PERCENTAGE
≤20	78	15.6
21- 25	262	52.4
26 - 30	108	21.6
> 30-35	52	10.4
TOTAL	500	100

Table 1 shows age distribution of the client study. More than 50% of them belong to the age group of less than 25 years. So, most of them are younger, primi if motivated have longer duration of usage of LARC.

AGE DISTRIBUTION

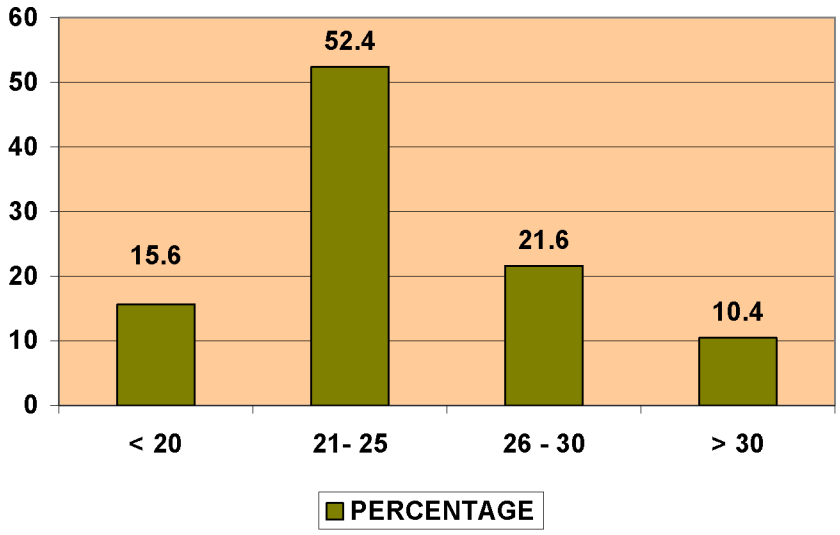


Table no. 2

GROUP DISTRIBUTION BY EDUCATION

EDUCATION	NO OF CASES	PERCENTAGE
EDUCATED	272	54.4
UN EDUCATED	228	45.6
TOTAL	500	100

TABLE 2 comparison of acceptance between the educated and the uneducated is studied. Both the group of women statistically show no difference in acceptance.

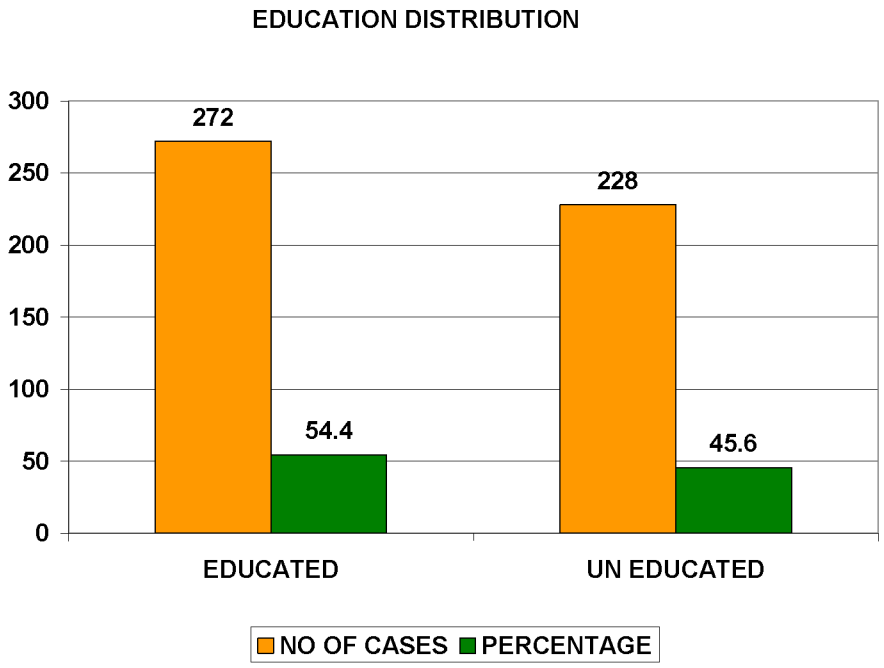

EDUCATION DISTRIBUTION
300
250
200
150
100
50
0
272
54.4
228
45.6
EDUCATED
UN EDUCATED
NO OF CASES
PERCENTAGE

TABLE 3

GROUP ASSIGNED BY OBSTETRIC CODE

PARITY	NO OF CASES	PERCENTAGE
p1l1	316	63.2
p1l1a1	27	5.4
p2l2	123	24.6
p3l3	34	6.8
TOTAL	500	100

TABLE 3 shows the percentage of clients according to their obstetric code. 63.2% are primi gravida. 6.8% are multi gravida. Acceptance percentage is more in primi gravida.

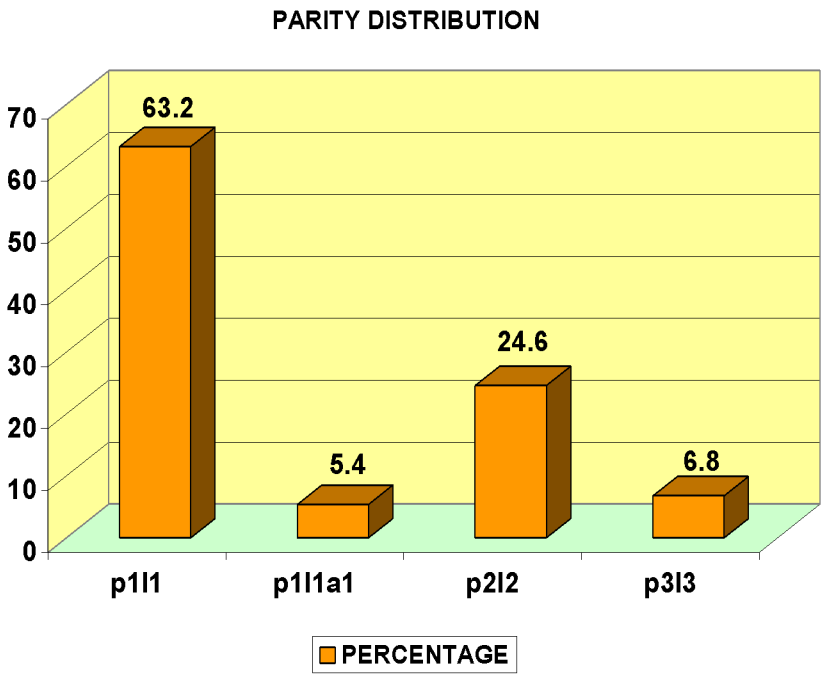

PARITY DISTRIBUTION
70
60
50
40
30
20
10
0
63.2
5.4
24.6
6.8
p1l1
p1l1a1
p2l2
p3l3
PERCENTAGE

Table no. 4

High risk pregnancies

HIGH RISK	NO OF CASES	PERCENTAGE
ANAEMIA	46	9.2
GDM	4	0.8
HTN	18	3.6
MR GRADE 1	8	1.6
MS/MR	4	0.8
PIH	28	5.6
NIL	106	21.6
TOTAL	500	100

Table 4 shows the MEC 2 & MEC clients 3 who contribute to 21.6%. MEC 3 contribute to 2.4 %.

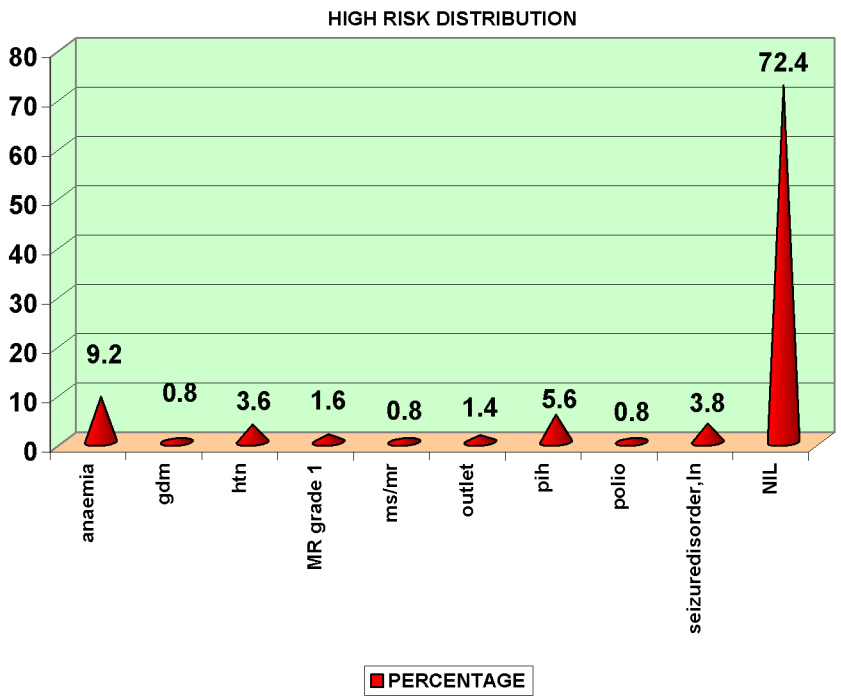

HIGH RISK DISTRIBUTION
80
70
60
50
40
30
20
10
0
9.2
0.8
3.6
1.6
0.8
1.4
5.6
0.8
3.8
72.4
anaemia
gdm
htn
MR grade 1
ms/mr
outlet
pih
polio
seizuredisorder,In
NIL
PERCENTAGE

Table 5

Clients according to mode of delivery

MODE OF DELIVERY	NO OF CASES	PERCENTAGE
LN	285	57
LSCS	215	43
TOTAL	500	100

Table 5 categorises the study group into two. 57% of them delivered by labour natural. 43% of them delivered by LSCS. Hence, it has been observed from the above table that there is no statistical difference in usage of PPIUCD in both groups.

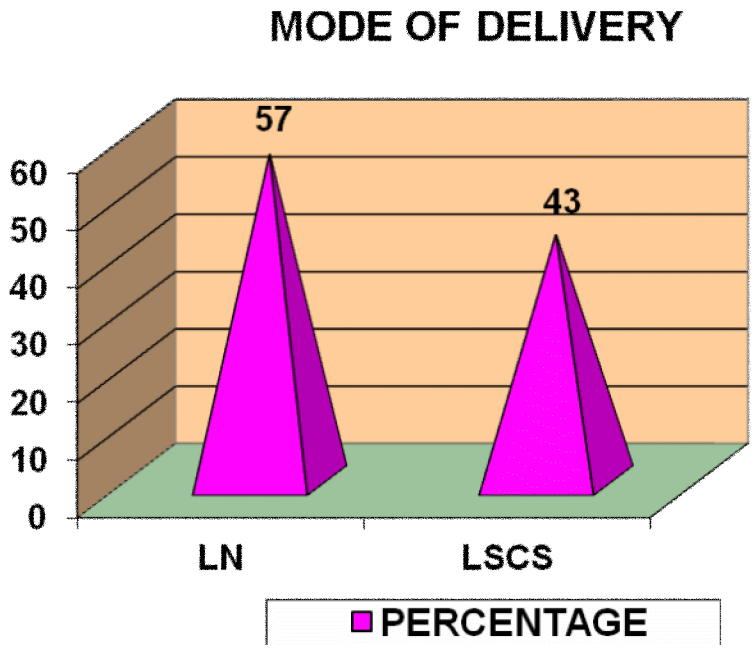

MODE OF DELIVERY
57
43
60
50
40
30
20
10
0
LN
LSCS
PERCENTAGE

Table 6

Insertion time

INSERTION TIME	NO OF CASES	PERCENTAGE
10 MTS	407	81.4
< 48 HRS	93	18.6
TOTAL	500	100

Table 6 shows 81.4% of the clients had immediate post placental IUCD insertion. 18.6% had IUCD before discharge from the post natal ward.

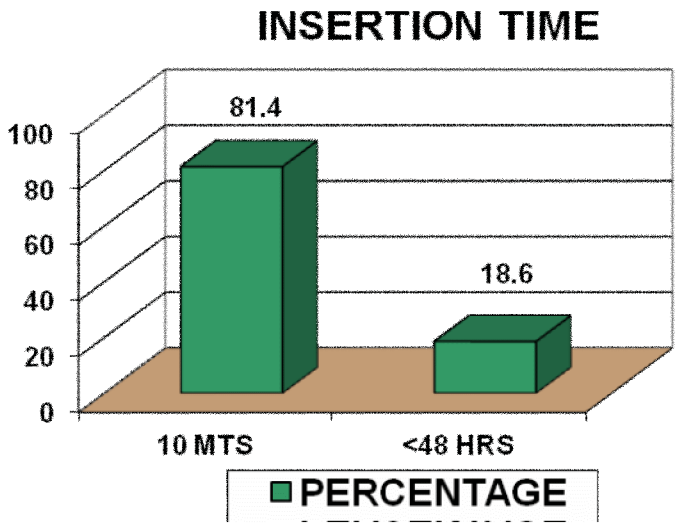

INSERTION TIME
81.4
18.6
100
80
60
40
20
0
10 MTS
<48 HRS
PERCENTAGE

Table 7

6 weeks Follow Up

FOLLOWUP	NO OF CASES	PERCENTAGE
YES	385	77
NO	115	23
TOTAL	500	100

385 cases came for follow up, contributing 77%

Table8 shows 77% of the study group where followed up. 23% were defaulters, including expulsion and removal.

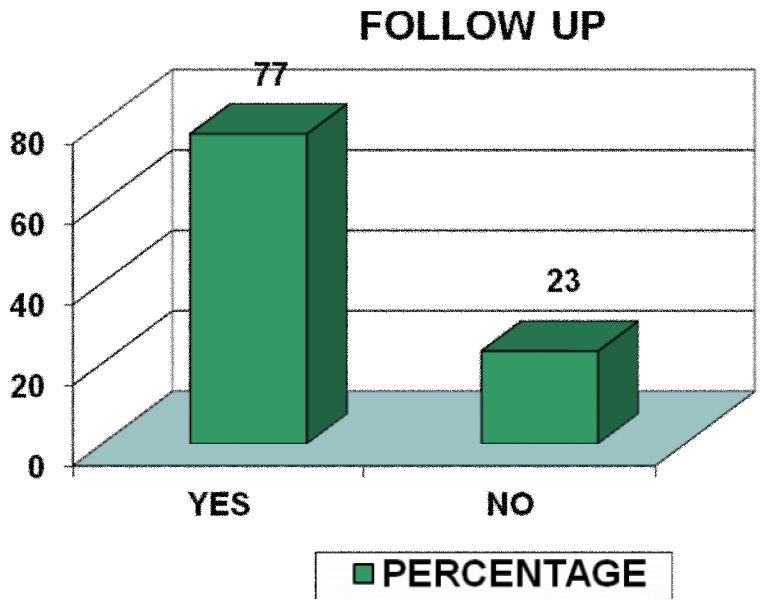

FOLLOW UP
77
23
80
60
40
20
0
YES
NO
PERCENTAGE

Table 8

6 months Follow Up

FOLLOWUP	NO OF CASES	PERCENTAGE
YES	311	62.2
NO	189	37.8
TOTAL	500	100

311 cases came for follow up, contributing 62%

Table8 shows 62% of the study group where followed up. 38% were defaulters, including expulsion and removal.

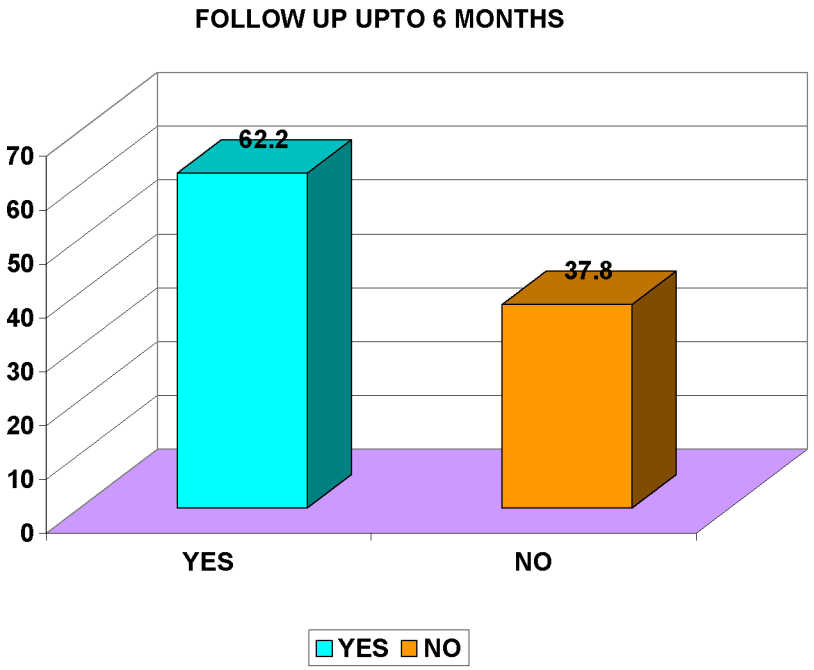

FOLLOW UP UPTO 6 MONTHS
70
60
50
40
30
20
10
0
62.2
37.8
YES
NO
YES
NO

Table 9

Period of counselling

COUNCELLED	NO OF CASES	PERCENTAGE
Antenatal Period	54	10.8
labour	446	89.2
TOTAL	500	100

Table 9 shows the acceptance rate according to the time of counseling.89.2% of the clients were counseled in labour. 10.8% of the booked cases accepted.

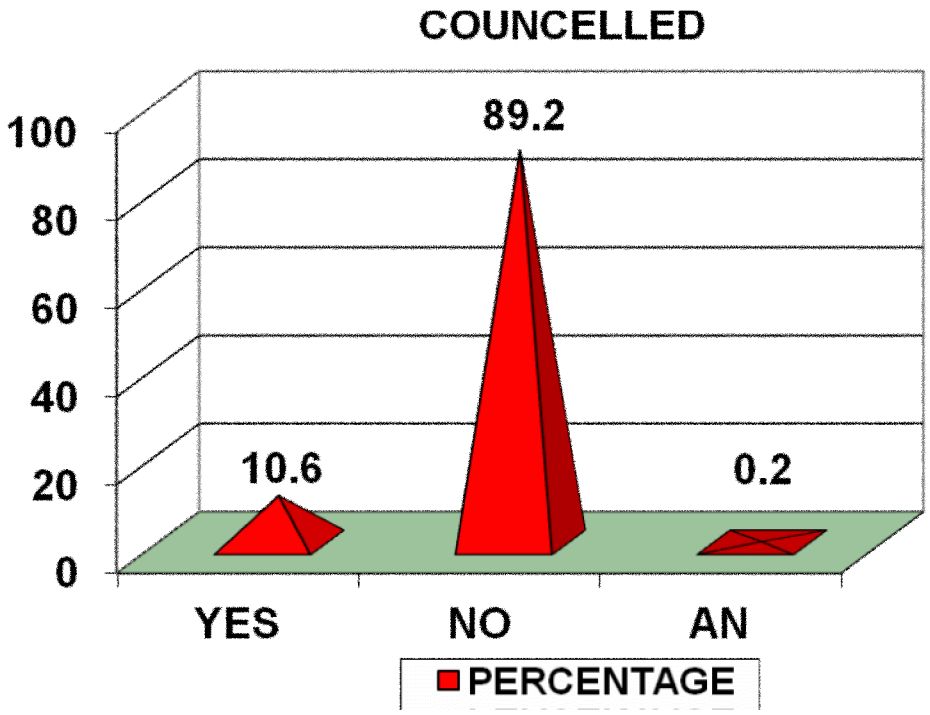

COUNCELLED
100
80
60
40
20
0
89.2
10.6
0.2
YES
NO
AN
PERCENTAGE

Table 10

Expulsion rate

Expulsion	NO OF CASES	PERCENTAGE
YES	41	8.2
NO	459	91.8
TOTAL	500	100

Table 10 the percentage of expulsion is around 8.2% which is falling into the expulsion rate of 4-15% various studies all over

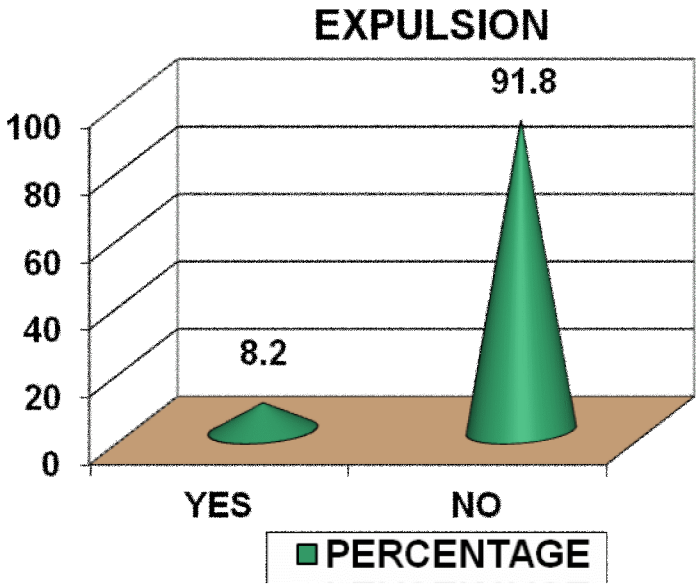

EXPULSION
91.8
8.2
100
80
60
40
20
0
YES
NO
PERCENTAGE

Table no. 11

Complications	No.of cases	Percentage
Pain	236	47.2
Bleeding	68	13.6
Infection	20	4.0

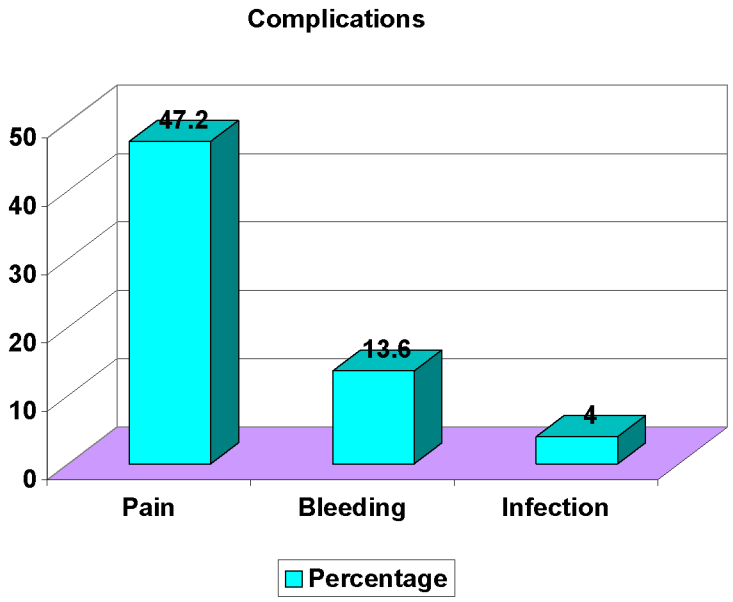


Table no. 12

Complications

PAIN	NO OF CASES	PERCENTAGE
YES	236	47.2
NO	264	52.8
TOTAL	500	100

Table no.12 shows 52.8% of the clients had no pain they came for follow up. 47.2% had compliant of chronic pain.

Table no.13

Bleeding	NO OF CASES	PERCENTAGE
YES	68	13.6
NO	432	86.4
TOTAL	500	100

Table 13 shows the percentage of patients during the follow with increase menstrual blood loss, that is 13.6%.

Table 14

Infection rate

Infection	NO OF CASES	PERCENTAGE
YES	20	4
NO	480	96
TOTAL	500	100

Table 14 shows 4% of the cases had vaginal infection. In Grimes D, Schuluz K, Van Viet H et al. the rate of infection was 2-4 %.

Table 15

Continuation

Continuation	NO OF CASES	PERCENTAGE
YES	314	62.8
NO	186	37.2
TOTAL	500	100

TABLE 15 shows the continuation rate, 314 cases continued ppiucd.62.8%patients who came for follow up were protected and with no complications.

Table - 16

Expulsion rate according to the age distribution

AGE	EXPULSION
≤20	18
21- 25	5
26 - 30	17
> 30	1
TOTAL	41

Expulsion rate is higher in teenagers,18 cases out 41 belong to the age group of ,20.

Table - 17

Education vs Continuation

EDUCATION	Continuation	Percentage
EDUCATED (272)	192	70.6
UN EDUCATED (228)	122	53.5

Table shows 70.6% among educated came for follow up and continued using Copper T. Among uneducated, 53.5% were using the method for atleast one year.

Table - 18

PARITY	EXPULSION	Percentage
p1l1 (316)	31	9.8
p1l1a1 (27)	1	3.7
p2l2 (123)	1	0.8
p3l3 (34)	8	23.5
TOTAL	41	

TABLE 18:comparison of expulsion rate according to the parity , p1/l1 cases had higher expulsion , but proportion of multi with expulsion is higher 23.5%, p=0.012 statistically significant.

Table - 19

Expulsion rate in high risk cases

HIGH RISK	EXPULSION
ANAEMIA	8
GDM	0
HTN	0
MR GRADE 1	0
MS/MR	0
OUTLET	1
PIH	0
POLIO	0
SEIZUREDISORDER,LN	0
NIL	32
TOTAL	41

8 cases of expulsion cases, among high risk group were anaemic, no significant relation between high risk cases and expulsion.

Table - 20

Mode of delivery vs Complications

	Pain	Bleeding	Infection
Labour Natural (285)	137	34	13
LSCS (215)	99	36	19

The most common early complications among the users were pain, bleeding and infections the less common complications.

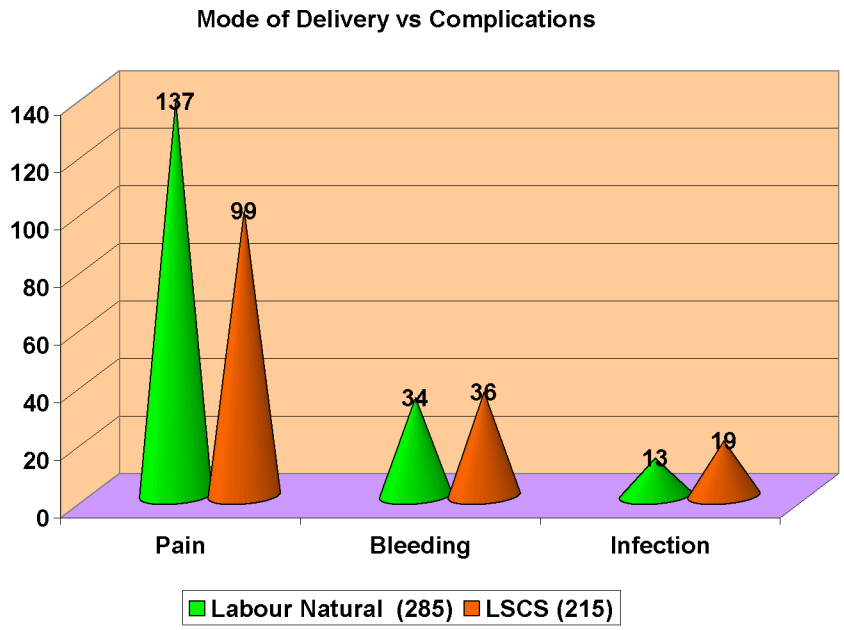

Mode of Delivery vs Complications
140
120
100
80
60
40
20
0
137
99
34
36
13
19
Pain
Bleeding
Infection
Labour Natural (285)
LSCS (215)

Table - 21

MODE OF DELIVERY	EXPULSION	
	No.of cases	Percentage
LN	22	53.6
LSCS	19	46.4
Total	41	100

P value - 0.848 Not significant

53.6% among the expulsion clients were delivered LN, 46.4% among expulsion were delivered by LSCS. There is no statistical association between mode of delivery and expulsion.

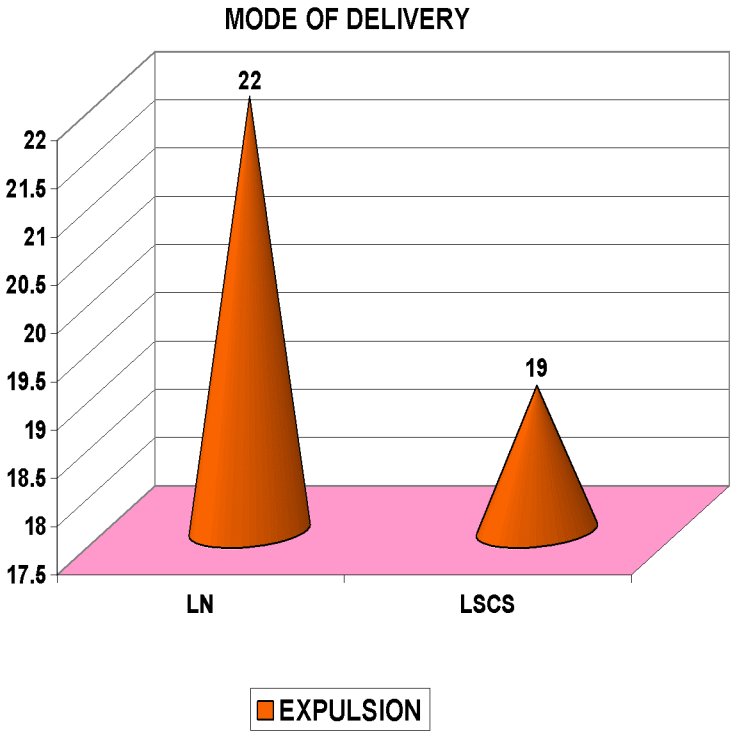

MODE OF DELIVERY
22
19
22
21.5
21
20.5
20
19.5
19
18.5
18
17.5
LN
LSCS
EXPULSION

Table - 22

INSERTION TIME VS EXPULSION

INSERTION TIME	EXPULSION	Percentage
10 MTS	30	73.2
<48 HRS	11	26.8
TOTAL	41	100

P value - 0.024 significant

73.2% among the expulsion clients were inserted within 10 minutes after delivery, 26.8% among expulsion were inserted after 10 minutes – less than 48 hours. There is statistical association between insertion time and expulsion. Expulsion rate was more among less than 10 minutes insertion.

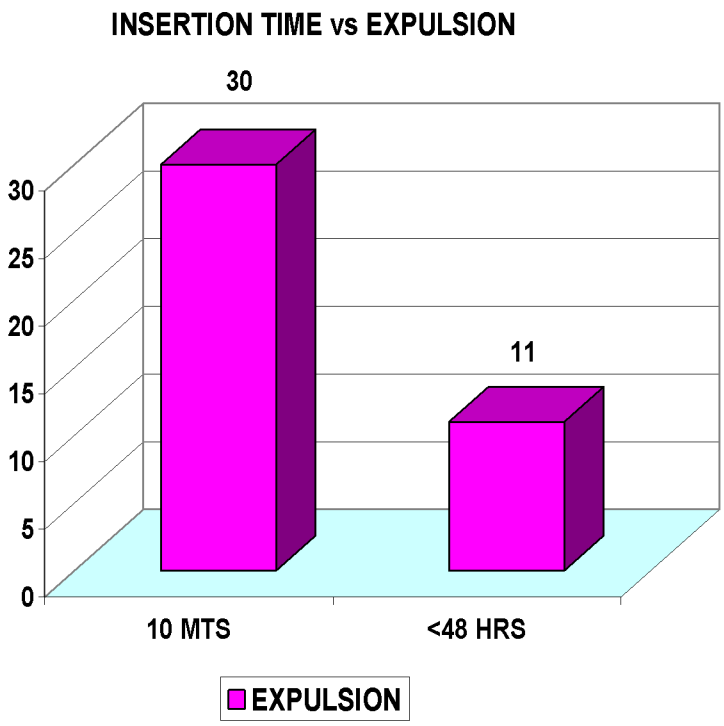
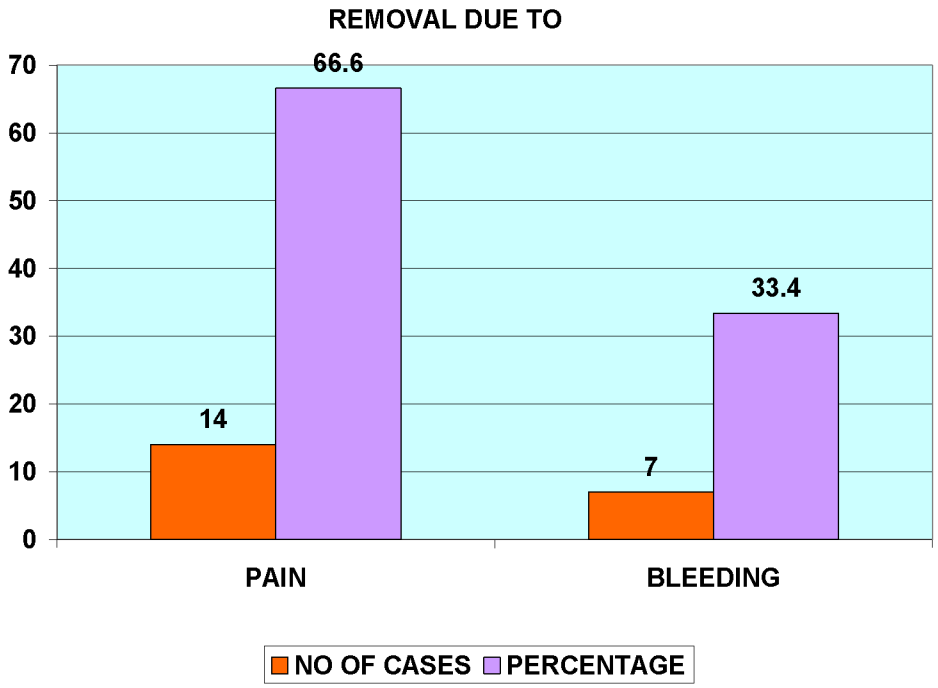

INSERTION TIME vs EXPULSION
30
11
30
25
20
15
10
5
0
10 MTS
<48 HRS
EXPULSION

Table - 23

REMOVAL DUE TO	NO OF CASES	PERCENTAGE
PAIN	14	66.7
BLEEDING	7	33.3

Among 21 cases who were followed up at 6 weeks were insisting on removal, 14 cases among due to pain and 7 cases due to bleeding. Pain was the most common cause for removal.


REMOVAL DUE TO
70
60
50
40
30
20
10
0
66.6
33.4
14
7
PAIN
BLEEDING
NO OF CASES
PERCENTAGE

DISCUSSION

An ideal method for LARC in a women which is technically easier, cost effective, with minimum contra indications and side effects is post placental intra uterine contraceptive devices. The present study conducted at Govt Rajaji Hospital was to evaluate the safety, efficacy, expulsion after applying Cu-T, in women delivering either by labour natural, or intra caesarean or within 8 hours in postnatal ward.

The PPIUCD was inserted after proper counselling, selection of the client according to the inclusion criteria.

Various factors age, parity, time of insertion, methods followed period of counselling, follow up at 6 wks, 6 months, continuation rate, analysis of complication was studied.

Age groups :median age group of the maximum number of clients motivated belong >70%(52.% in the age group of 20-25 years,12% were <20 years.

In study of Kenya PPIUCD assessment report, at Embu provisional general hospital of the sample size 60,all were in the age group>18 years.

PARITY:

54.4%of clients were educated, 45.6%were uneducated, nearly equal distribution, acceptance rate is independent of the education status. Appropriate mode of counseling if followed negotiates education as a criteria.

OBSTETRIC CODE:

63.2% were primigravida, 40%multigravida

In the present study obstetric code was a factor studied, acceptance percentage was more among primigravida, since they want to postpone pregnancy. multigravida prefer permanent sterilisation.

Bonilla posales, cazerus montero study, parity was a factor taken into account since the frequency of expulsion was studied.

TIME OF INSERTION:

Three categories of insertion <10mts,<48 hrs, in lscs. broadly 57%delivered by labour natuaral,43%by lscs.81.4% inserted <10 mts,18.6%<48 hrs.

In study conducted by Celen S,Zeker tahir,Burak,74% was labour natuaral,26%cesarean.

EXPULSION

41 cases expelled immediately =8.2%,in bonilli rosales study expulsion was 16%for immediate PPIUCD insertion in by study the expulsion rate is 8.2%,which is less than that indicating technical feasibilty of the method. Rate of expulsion is higher in immediate insertion,83.4%.

Comparison of expulsion according to parity:

31 cases out of 41 expelled are p1/l1, because majority of insertion done in primi gravida,8 out of 30 cases expelled in multigravida, giving proportion of 23.5%,p value =0.012 that is statistically significant, multigravida have more rate of expulsion.

High risk pregnancies medical eligibility criteria Category 2&3 were studied

9.2%cases of anaemia, 3.65 pregnancy induced hypertention, 0.8% heart disease, 0.8%GDM.

MODE OF DELIVERY:

285 cases delivered vaginally, 215 clients delivered by cesarean section was studied. Mode of insertion in them was manual for LSCS, kellys inserter for labour natural.

MODE OF DELIVERY AND EXPULSION:

22 cases in LN group expelled, 19/40 cases in LSCS expelled, p=0.848, which s not statistically significant. there is no difference in the rate of expulsion according to the mode of delivery.

INSERTION TIME AND EXPULSION

30 cases out of 41 expelled, who was inserted in <10 mts, immediate postplacental insertion has higher chance of expulsion. In Peru international study, cochrane data base review, expulsion rate was high.

PARITY AND EXPULSION RATE:

Out of the 316 cases of primi gravida 31 case expelled, among 34 cases of multigravida 8 cases expelled, p=0.012 which is statistically significant that expulsion in more in multigravida.

Lara Ricalde, R., Menocal Tobias, G., Ramos Pérez, C., & Velázquez Ramirez, N. (2006), the expulsion rate was higher in multigravida.

Complications after insertion:

Bleeding, Pain, Infection were studied in the clients during follow up. Of the 500 cases, 236 cases had complaint of pain. 47.2%, 68 cases had menstrual complaints.

Mode of delivery vs Complications

	Pain	Bleeding	Infection
Labour Natural (285)	137	34	13
LSCS (215)	99	36	19

The most common early complications among the users were pain, bleeding and infections the less common complications

Removal of PPIUCD:

Among 21 cases who were followed up at 6 weeks were insisting on removal, 14 cases among due to pain and 7 cases due to bleeding. Pain was the most common cause for removal

Mode of delivery and expulsion

MODE OF DELIVERY	EXPULSION	
	No.of cases	Percentage
LN	22	53.6
LSCS	19	46.4
Total	41	100

P value - 0.848 Not significant

53.6% among the expulsion clients were delivered LN, 46.4% among expulsion were delivered by LSCS. There is no statistical association between mode of delivery and expulsion.

Education vs Continuation

EDUCATION	Continuation	Percentage
EDUCATED (272)	192	70.6
UN EDUCATED (228)	122	53.5

Table shows 70.6% among educated came for follow up and continued using Copper T. Among uneducated, 53.5% were using copper T.

METHODS OF REDUCING EXPULSION

The certain factors are useful and followed that influence the retention of the IUCD. Fundal placement of the IUCD is critical to reduce expulsion rates and most of the following factors relate to the ability of the provider to achieve and maintain fundal placement of the IUCD.

- **The position of the postpartum uterus:**

Immediately following delivery and active management of third stage, the uterus contracts and sits low and slightly anteriorly in the abdominal cavity. The axis of the uterine cavity is at about a right

angle to the axis of the postpartum vagina. During instrumental insertion of the IPPIUCD, that sharp angle can make insertion difficult and can result in a false belief that the provider has reached the fundus. For that reason, during insertion, the uterus is pushed up in the abdomen by the palm of the hand on the lower abdomen to smoothen out that angle and allow for the instrument holding the IUCD to pass all the way to the fundus.

 IUCD is holded at the edge.

While still the IUCD is in the sterile packet so that when the instrument is opened the IUCD falls out against the myometrium. If the IUCD is held in the middle of the instrument, there is the risk that it will be displaced when the provider moves the instrument away. To release the IUCD at the fundus, tilt the Kelly placental forceps slightly inwards so that the IUCD may fall at the fundus, the kellys is swept laterally from the cu-t. **laterally**, away from the IUCD. This will help avoid getting the strings caught in the forwards and downward displacement of the IUCD while the instrument is being removed.

 Keeping the instrument closed at the right time and open at the right time:

Wwhile the instrument is holding the IUCD and moving up to the fundus, the provider must ensure that it remains closed so that the IUCD does not get dropped somewhere below the fundus. As well, after the IUCD has been correctly placed at the fundus, the provider should keep the instrument slightly open as it is withdrawn, to ensure that the threads are not caught in the instrument and the IUCD dragged downward, to a final resting position that is midway down the uterine cavity.

 Checking that the IUCD is not protruding from the cervix:

After the instrument is completely withdrawn from the uterus, the provider must ensure that the IUCD is not visible through the cervix. The provider must look at the cervix to be sure that the IUCD is not visible, and that the strings (if visible) do not appear inappropriately long. If the IUCD can be seen, or the strings appear long, the provider must remove the IUCD and reinsert it at the fundus.

 Using the right instrument:

There has not been a clinical trial to determine if the use of a Kelly placental forceps or a ring/sponge holding forceps results in a lower spontaneous expulsion rate. Experience has suggested that the Kelly placental forceps, because it is a longer instrument, may allow the provider to more easily reach the uterine fundus. Furthermore, the slight curve at the end of the forceps may prevent the strings from getting caught in the instrument, which may also limit the possibility that the IUCD will be inferiorly displaced during withdrawal. Numerous clinical trials have compared manual post placental insertion, with instrumental post placental insertion and both techniques are equivalent in terms of expulsion rates.

CONCLUSION

Acceptance rate, continuation rate is higher in the parturients and is comparable to the other studies done. Awareness among the public is very low. Very effective counseling, high motivation in the women during the first stage and after delivery was the key success in the study. Both educated and uneducated women have misconception about the copper T. if it becomes routine and followed in delivered women the NPP goal can be achieved.

SUGGESTION

Factors affecting the acceptability and safety of PPIUCD which have not been studied in our hospital before, is analysed in my thesis. PPIUCD is an upcoming project in our country. The clinical outcomes in my study is favourable. Study helps me to analyse the mentality and local factors which when negotiated gives a women the protection against unwanted pregnancy. Before the women is discharged she is ready with LARC.

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PROFORMA

Name: Age:

Obstetrics code:

PAST HISTORY

H/O Diabetes/Hypertension/Tuberculosis/HeartDisease/Renal disease / Epilepsy/Thyroid disorder/chronic drug intake

FAMILY HISTORY

Veg / Non veg

GENERAL EXAMINATION

Height	Weight	BMI
Anaemia	Pedal edema	Breasts
Thyroid	Spine	Gait

SYSTEMIC EXAMINATION

VITALS	Pulse	BP
CVS	RS	

ABDOMEN

P/A

P/S

P/V

INVESTIGATIONS

Hb%

Urine albumin Sugar deposit

PRE-INSERTION SCREENING QUESTIONARE

Whether she still desires for IUCD	YES	NO
She fix into the MEC	YES	NO
Whether she is counselled(During AN period ,Active Labour)	YES	NO
Counselled in Post-Partum Period	YES	NO
Chorioamniotis (During Labour)	YES	NO
MRO>18 hrs.	YES	NO
Unresolved PPH	YES	NO
Puerperal Sepsis	YES	NO
Post-Partum Endometritis	YES	NO
Continued Excessive Post-partum Bleeding	YES	NO
Extensive genital trauma	YES	NO
Sterile Instruments available	YES	NO

ABBREVATIONS USED

NPP	-	National population policy
IUCD	-	Intrauterine contraceptive device
PPIUCD	-	Postpartum intrauterine contraceptive device
LARC	-	Long acting reversible contraceptive method
MMR	-	Maternal mortality rate
OCP	-	Oral contraceptive pill
PID	-	Pelvic inflammatory disease
PROM	-	Premature rupture of membrane
STD	-	Sexually transmitted disease
HIV	-	Human immunodeficiency virus

MASTER CHART

S NO	NAME	Age	Education	Parity	High risk	LN	LSCS	10 MTS	<48 HRS	KELLYS	6 week sfollow up	6 months follow up	Councelled	DELIVERY	Expulsion	Pain	Bleeding	Infection	Continuat	Removal due to
1	thiravialakshmi	26	√	p1l1		√		√		√	√		AN		√	√			√	Pain
2	shakila	19		p1l1		√		√			√	√			√	√			√	
3	abarna	23	√	p1l1	outlet	outlet		√		√		√		√	√	√			√	
4	soorya	20	√	p1l1		√			√				AN							
5	jeyamani	22		p1l1		√			√			√	AN		√		√		√	
6	pandeeshwari	33		p1l1a1			√	√			√	√	AN	√	√				√	
7	sheela	26	√	p2l2	seizure disorder,ln		√	√		√	√	√	AN	√					√	
8	sasikalai	27	√	p1l1		√		√		√	√	√		√	√	√			√	
9	kaaleeshwri	29		p2l2	anaemia	√			√			√	AN				√		√	
10	sundari	24	√	p1l1		√			√		√	√	AN	√		√			√	
11	karthika	23	√	p1l1			√	√			√	√		√		√			√	
12	ranjitha	21		p1l1			√	√			√	√		√					√	
13	kokila	29	√	p1l1	pih		√	√			√	√	AN	√			√		√	Bleeding
14	yosafsalim	36		p3l3	htn	√		√		√				√						
15	chellamuthu	20	√	p1l1			√	√		√			AN		√	√				
16	kalaiselvi	22	√	p1l1		√		√			√	√							√	
17	anandhi	20	√	p1l1			√	√			√	√	AN	√					√	
18	priya	24	√	p1l1			√	√			√		AN	√				√		
19	priyanka	24		p1l1	anaemia		√	√		√	√			√		√		√		
20	paandi	20		p1l1a1		√			√			√	AN	√		√			√	
21	amutha	24	√	p1l1			√	√			√	√	AN	√		√			√	
22	panchavarnam 25	25	√	p1l1		√			√	√	√	√	AN	√						
23	thuvari	21		p1l1a1		√			√	√	√	√		√					√	
24	usha	30		p3l3	anaemia		√	√		√			AN		√					
25	parvathy	22	√	p1l1		√			√	√		√	AN	√					√	

26	lakshmi	26	√	p1l1		√			√	√	√			√					√	
27	raaku	24		p1l1			√	√		√	√		AN	√		√			√	
28	easwari	22	√	p1l1		√			√	√	√	√	AN	√					√	
29	manjula	31	√	p1l1		√			√	√	√	√		√		√			√	
30	ramu	28	√	p2l2		√			√	√	√	√	AN	√		√			√	
31	rajalakhshmi	21		p2l2	seizure disorder,ln	√			√	√	√		AN	√		√				
32	palani	25		p2l2	MR grade 1		√	√		√	√		AN							
33	suganthi	27	√	p1l1			√	√			√	√	AN	√			√		√	
34	veerammal	19		p1l1		√			√		√			√						
35	rekha	25		p1l1		√		√								√				
36	umadevi	24	√	p2l2		√		√		√	√		AN	√			√			
37	muthulaksmi	22	√	p1l1		√		√			√		AN	√		√				
38	chitra	20		p1l1		√			√		√	√					√		√	
39	stella	23		p1l1		√			√			√	AN	√				√	√	
40	thenmozhi	23	√	p1l1			√	√			√	√	AN	√		√			√	
41	rakayee	28	√	p1l1		√		√			√			√		√			√	
42	revathy	25	√	p2l2		√		√			√	√		√		√			√	
43	mlathi	29	√	p1l1		√		√			√		AN	√		√				
44	selvamani	19		p1l1	anaemia	√			√	√	√		AN	√						
45	muthumeena	22	√	p1l1	anaemia		√	√		√	√	√		√					√	
46	Mani	24		p2l2	polio	√		√		√	√	√	AN	√						
47	renuka	21	√	p1l1			√	√			√	√	AN	√					√	
48	rajakumari	22	√	p1l1			√	√			√	√	AN	√					√	
49	bomi	33		p1l1a1			√	√			√		AN	√						
50	nandhini	26	√	p2l2	seizure disorder,ln	√		√		√	√			√						
51	umadevi	27	√	p1l1		√		√		√	√	√		√		√			√	
52	malar	29		p2l2	anaemia		√	√				√					√		√	
53	alagu meena	24	√	p1l1		√			√		√	√	AN	√		√			√	
54	fathima	23	√	p1l1			√	√			√	√		√		√			√	
55	vijaya	21		p1l1			√	√			√	√	AN	√					√	
56	sudha	29	√	p1l1	pih		√	√			√	√		√			√		√	
57	sathya vani	36		p3l3	htn		√	√		√				√						
58	femina	31	√	p1l1		√		√		√	√	√	AN	√		√			√	
59	annette	24	√	p2l2		√		√		√	√	√	AN	√		√			√	
60	yagalatha	30		p2l2	seizure		√	√		√	√	√	AN	√		√			√	

					disorder,In															
61	suganya	31		p2l2	MR grade 1		√	√		√	√	√							√	
62	rani	27	√	p1l1			√	√			√	√		√			√		√	Bleeding
63	preethi	19		p1l1		√		√			√	√	AN	√					√	
64	preetha	25		p1l1		√		√								√				
65	padma priya	24	√	p2l2			√	√		√	√			√			√			
66	bala gowri	22	√	p1l1		√		√			√		AN	√		√				
67	ragavi	20		p1l1		√			√		√	√	AN				√		√	
68	rama lakshmi	21		p2l2			√	√			√	√	AN	√		√			√	
69	sahayam	21		p2l2			√	√			√	√		√		√			√	
70	shobana	21		p2l2			√	√			√	√	AN	√		√			√	
71	priya	21		p2l2			√	√			√		AN	√		√				
72	shabana	21		p2l2			√	√			√		AN	√		√				
73	veni	21		p2l2			√	√			√			√		√				
74	purka	21		p2l2			√	√			√			√		√				
75	satheshwari	21		p2l2			√	√			√			√		√				
76	murugeshwari	21		p2l2			√	√			√			√		√				
77	jasebeena	21		p2l2			√	√			√		AN	√		√				
78	jessy	21		p2l2			√	√			√		AN	√		√				
79	devi	21		p2l2			√	√			√		AN	√		√				
80	sasikalai	21		p2l2			√	√			√			√		√				
81	rani	20	√	p1l1		√		√		√	√	√			√	√			√	
82	angamalla	19		p1l1		√		√			√	√				√			√	
83	marugeshwari	23	√	p1l1	outlet	outlet		√		√		√		√		√			√	
84	raji	20	√	p1l1		√			√			√	AN							
85	saranya	22		p1l1		√			√			√					√		√	
86	hema	33		p1l1a1			√	√			√	√	AN	√					√	
87	hemalatha	26	√	p2l2	seizure disorder,In	√		√		√	√		AN	√						
88	marugesghwari	27	√	p1l1		√		√		√	√	√	AN	√		√			√	
89	pounroja	29		p2l2	anaemia	√			√			√					√		√	
90	meenu	29		p2l2	anaemia		√	√				√					√		√	
91	radha	24	√	p1l1		√			√		√	√		√		√			√	
92	amaravathi	23	√	p1l1			√	√			√	√	AN	√		√			√	
93	swarna	21		p1l1			√	√			√	√		√					√	
94	marichelvi	29	√	p1l1	pih		√	√			√		AN	√			√		√	
95	lakshmi	36		p3l3	htn	√		√		√			AN	√						

96	malathy	20	√	p1l1		√			√	√					√	√				Pain
97	ramya	22	√	p1l1		√			√		√									
98	mani megalay	20	√	p1l1			√	√			√		AN	√						
99	murugeshwari	24	√	p1l1			√	√			√		AN	√				√		
100	geetha	24		p1l1	anaemia	√			√	√	√			√		√		√		
101	thirupathi	29	√	p1l1			√	√			√			√	√	√				Pain
102	bharathi	31	√	p1l1	pih		√	√		√	√	√	AN	√		√			√	
103	thenmoli	19	√	p1l1	pih		√	√					AN	√			√			
104	durga	29	√	p1l1	pih		√	√			√			√			√		√	
105	keerthana	36		p3l3	htn	√			√	√			AN	√						
106	pothuponnu	20	√	p1l1		√			√	√					√	√				
107	samantha	22	√	p1l1		√		√			√	√							√	
108	gayathiri	20	√	p1l1			√	√			√	√		√					√	
109	annalakshmi	24	√	p1l1			√	√			√		AN	√				√		
110	soundarya	24		p1l1	anaemia	√		√		√	√		AN	√		√		√		
111	chandra	29	√	p1l1			√	√			√			√	√	√				Pain
112	sanjeevi	31	√	p1l1	pih	√			√	√	√	√	AN	√		√			√	
113	subaritha	19	√	p1l1	pih		√	√				√	AN	√			√			
114	jemima	36		p3l3	htn		√	√		√		√		√						
115	mala	20	√	p1l1			√	√		√		√			√	√			√	Pain
116	latha	22	√	p1l1		√			√		√	√							√	
117	laksmi	20	√	p1l1			√	√			√	√	AN	√					√	
118	anandhi	24	√	p1l1			√	√			√	√	AN	√				√		
119	padmavathi	24		p1l1	anaemia	√			√	√	√	√		√		√		√		
120	subarita	20		p1l1a1		√			√			√		√		√			√	
121	nithya	24	√	p1l1			√	√			√	√		√		√			√	
122	kavitha	22	√	p1l1		√			√	√	√	√		√						
123	akila	21		p1l1a1		√			√	√	√	√		√					√	
124	parvathi	30		p3l3	anaemia	√			√	√					√					
125	asha	22	√	p1l1			√	√		√		√	AN	√					√	
126	vishali	26	√	p1l1		√			√	√	√		AN	√					√	
127	thamari	24		p1l1		√			√	√	√		AN	√		√			√	
128	veni	22	√	p1l1		√			√	√	√	√		√					√	
129	valarmathi	31	√	p1l1			√	√		√	√	√		√		√			√	
130	salthi priya	28	√	p2l2		√			√	√	√	√	AN	√		√			√	
131	annam	30		p3l3	ms/mr	√			√	√	√	√		√					√	
132	sukanya	25		p3l3	gdm		√	√		√										

133	leka	21	√	p1l1		√		√		√	√	√			√	√			√	Pain
134	radha	19		p1l1		√		√			√	√				√			√	
135	meena	23	√	p1l1	outlet	outlet		√		√		√		√		√			√	
136	lakshmi	20	√	p1l1		√			√			√							√	
137	sudha	22		p1l1		√			√			√					√		√	
138	mohanaa	33		p1l1a1			√	√			√	√		√					√	
139	nagu	26	√	p2l2	seizure disorder,ln	√		√		√	√	√	AN	√					√	
140	lakshmi	27	√	p1l1		√		√		√	√	√	AN	√		√			√	
141	saranya	29		p2l2	anaemia	√			√			√					√		√	
142	thenmoli	24	√	p1l1		√			√		√	√		√		√			√	
143	muthu	23	√	p1l1			√	√			√	√	AN	√		√			√	
144	priya	21		p1l1			√	√			√	√	AN	√					√	
145	mani	29	√	p1l1	pih		√	√			√	√		√			√		√	
146	megalai	36		p3l3	htn	√		√		√		√	AN	√						
147	nandhini	20	√	p1l1			√	√		√		√			√	√				
148	ameena	22	√	p1l1		√		√			√	√							√	
149	kanimoli	20	√	p1l1			√	√			√		AN	√						
150	revathi	24	√	p1l1			√	√			√			√				√		
151	raji	24		p1l1	anaemia	√		√		√	√		AN	√		√		√		
152	anitha	20		p1l1a1		√			√			√	AN	√		√			√	
153	sharmila	24	√	p1l1			√	√			√	√		√		√			√	
154	revathy	21	√	p1l1		√			√	√	√	√	AN	√						
155	sri devi	21		p1l1a1		√			√	√	√	√		√					√	
156	deepa	30		p3l3	anaemia	√			√	√					√					
157	raji	22	√	p1l1		√			√	√				√					√	
158	venmathi	26	√	p1l1			√	√		√	√		AN	√					√	
159	rajeshwari	24		p1l1		√			√	√	√	√		√		√			√	
160	brindha	22	√	p1l1		√			√	√	√	√	AN	√					√	
161	gomathi	31	√	p1l1		√			√	√	√	√		√		√			√	
162	muthumari	28	√	p2l2		√			√	√	√	√		√		√			√	
163	jthi	21		p2l2	seizure disorder,ln		√	√		√	√		AN	√		√			√	
164	chellama	25		p2l2	MR grade 1	√			√	√	√	√							√	
165	vanitha	27	√	p1l1			√	√			√	√		√			√		√	
166	anadhi	19		p1l1		√		√			√	√		√					√	
167	karthiga	25		p1l1		√		√					AN			√				

168	bveenitha	24	√	p2l2		√		√		√	√		AN	√			√			
169	meenakshi	22	√	p1l1		√		√			√	√		√		√				
170	pandi	20		p1l1		√			√		√	√	AN				√		√	
171	gayathiri	23		p1l1			√	√				√		√				√	√	
172	sophiya	23	√	p1l1		√			√		√	√		√		√			√	
173	sumathi	28	√	p1l1		√		√			√	√	AN	√		√			√	
174	alagumani	25	√	p2l2		√		√			√	√		√		√			√	
175	samudirakani	29	√	p1l1		√		√			√	√	AN	√		√			√	
176	jyothi	19		p1l1	anaemia		√	√		√	√	√		√					√	
177	shanthi	22	√	p1l1	anaemia	√		√		√	√	√		√					√	
178	karunya	24		p2l2	polio	√		√		√	√	√		√					√	
179	vimala	21	√	p1l1			√	√			√	√	AN	√					√	
180	valarmathi	22	√	p1l1			√	√			√	√	AN	√					√	
181	sumathi	33		p1l1a1			√	√			√	√		√					√	
182	kavitha	26	√	p2l2	seizure disorder,ln	√		√		√	√	√	AN	√						
183	vijaya	27	√	p1l1		√		√		√	√	√		√		√			√	
184	meena	29		p2l2	anaemia	√			√			√					√		√		
185	anushya	24	√	p1l1		√			√		√	√	AN	√		√			√	
186	jeyabala	23	√	p1l1			√	√			√	√	AN	√		√			√	
187	aarty	21		p1l1			√	√			√	√		√					√	
188	alaguroja	29	√	p1l1	pih		√	√			√	√		√			√		√	
189	vali	36		p3l3	htn	√		√		√				√						
190	nbethammal	31	√	p1l1		√		√		√	√	√		√		√			√	
191	kangavalli	24	√	p2l2		√		√		√	√		AN	√		√			√	
192	kaleeshwari	30		p2l2	seizure disorder,ln	√		√		√	√	√	AN	√		√			√	
193	chitra	31		p2l2	MR grade 1		√	√		√	√	√							√	
194	latha	27	√	p1l1			√	√			√	√	AN	√			√		√	
195	panju	19		p1l1		√		√			√	√	AN	√					√	
196	suganya	25		p1l1		√		√				√				√				
197	aarumugam	24	√	p2l2			√	√		√	√	√		√			√		√	
198	mohana priya	22	√	p1l1		√		√			√			√		√				
199	maliga	20		p1l1		√			√		√						√		√	
200	indumathi	21		p2l2			√	√			√	√	AN	√		√			√	
201	muthu biwi	21		p2l2			√	√			√	√		√		√			√	
202	poomari	21		p2l2			√	√			√	√		√		√			√	

203	madhu	21		p2l2			√	√			√	√	AN	√		√			√	
204	mathi	21		p2l2			√	√			√	√	AN	√		√			√	
205	anna kamu	21		p2l2			√	√			√			√		√				
206	saradha	21		p2l2			√	√			√			√		√				
207	mariammal	21		p2l2			√	√			√			√		√				
208	bharathi	21		p2l2			√	√			√			√		√				
209	banumathi	21		p2l2			√	√			√			√		√				
210	sathya vani	21		p2l2			√	√			√		AN	√		√				
211	revathy	21		p2l2			√	√			√			√		√				
212	panju	21		p2l2			√	√			√			√		√				
213	sndhya	22	√	p1l1		√		√		√	√	√	AN		√	√			√	
214	sathya vani	19		p1l1		√		√			√	√				√				
215	sakthi pruya	23	√	p1l1	outlet	outlet		√		√		√		√		√			√	
216	parvathi	20	√	p1l1		√			√				AN							
217	priya	22		p1l1		√			√								√			
218	usha	33		p1l1a1			√	√			√	√		√					√	
219	anushya	26	√	p2l2	seizure disorder,ln	√		√		√	√	√	AN	√						
220	banumathi	27	√	p1l1		√		√		√	√	√		√		√			√	
221	bhavani	29		p2l2	anaemia		√	√									√		√	
222	muthupechi	29		p2l2	anaemia	√			√								√		√	
223	anitha	24	√	p1l1		√			√		√			√		√			√	
224	megalai	23	√	p1l1			√	√			√		AN	√		√			√	
225	selva priya	21		p1l1			√	√			√	√	AN	√					√	
226	kala	29	√	p1l1	pih		√	√			√	√	AN	√			√		√	
227	vedha	36		p3l3	htn	√		√		√				√						
228	uthra	20	√	p1l1		√			√	√					√	√				
229	vidhya	22	√	p1l1		√		√			√	√							√	
230	vali	20	√	p1l1			√	√			√	√		√					√	
231	leka	24	√	p1l1			√	√			√	√	AN	√				√	√	
232	priya	24		p1l1	anaemia		√	√		√	√			√		√		√		
233	madhu	29	√	p1l1			√	√			√			√	√	√				Pain
234	padma	31	√	p1l1	pih	√		√		√	√	√		√		√			√	
235	pushpa	19	√	p1l1	pih		√	√				√		√			√			Bleeding
236	swarna	29	√	p1l1	pih		√	√			√	√		√			√		√	
237	gowri	36		p3l3	htn	√		√		√				√						
238	rajeshwari	20	√	p1l1		√			√	√			AN		√	√				

239	sindhya	22	√	p1l1		√		√			√	√							√	
240	syamala	20	√	p1l1			√	√			√	√	AN	√					√	
241	shanthi	24	√	p1l1			√	√			√	√		√				√	√	
242	booma devi	24		p1l1	anaemia	√		√		√	√			√		√		√		
243	chandra	29	√	p1l1			√	√			√			√	√	√				Pain
244	antony	31	√	p1l1	pih	√		√		√	√	√	AN	√		√			√	
245	kangavali	19	√	p1l1	pih		√	√						√			√			Bleeding
246	latha	36		p3l3	htn		√	√		√				√						
247	anitha	20	√	p1l1			√	√		√		√	AN		√	√			√	
248	sara	22	√	p1l1		√		√			√	√							√	
249	viji	20	√	p1l1			√	√			√	√		√					√	
250	bala gowri	24	√	p1l1			√	√			√		AN	√				√		
251	karthiga	24		p1l1	anaemia	√		√		√	√		AN	√		√		√		
252	pon meenaja	20		p1l1a1		√		√				√	AN	√		√			√	
253	rathna	24	√	p1l1			√	√			√	√		√		√			√	
254	anitha	21	√	p1l1		√		√		√	√	√		√						
255	kaniga	21		p1l1a1		√		√		√	√	√		√					√	
256	ramya	30		p3l3	anaemia	√		√		√					√					
257	maheshwari	22	√	p1l1		√		√		√		√		√					√	
258	sundaravalli	26	√	p1l1		√		√		√	√	√	AN	√					√	
259	karthishwari	24		p1l1		√		√		√	√	√		√		√			√	
260	radha	22	√	p1l1		√		√		√	√	√		√					√	
261	lakshmi	31	√	p1l1		√		√		√	√	√	AN	√		√			√	
262	munniyammal	28	√	p2l2		√		√		√	√	√		√		√			√	
263	manicka priya	30		p3l3	ms/mr	√		√		√	√	√		√					√	
264	jeevitha	25		p3l3	gdm		√	√		√		√								
265	chandra	29	√	p1l1			√	√			√	√	AN	√	√	√				Pain
266	sanjeevi	31	√	p1l1	pih	√		√		√	√	√		√		√			√	
267	subaritha	19	√	p1l1	pih		√	√						√			√			Bleeding
268	jemima	36		p3l3	htn		√	√		√				√						
269	mala	20	√	p1l1			√	√		√			AN		√	√				
270	latha	22	√	p1l1		√		√			√	√							√	
271	laksmi	20	√	p1l1			√	√			√	√		√					√	
272	anandhi	24	√	p1l1			√	√			√			√				√		
273	padmavathi	24		p1l1	anaemia	√		√		√	√		AN	√		√		√		
274	subarita	20		p1l1a1		√		√						√		√			√	
275	nithya	24	√	p1l1			√	√			√			√		√			√	

276	kavitha	22	√	p1l1		√		√		√	√		AN	√						
277	akila	21		p1l1a1		√		√		√	√	√		√					√	
278	parvathi	30		p3l3	anaemia		√	√		√		√			√					
279	asha	22	√	p1l1		√		√		√		√		√					√	
280	vishali	26	√	p1l1		√		√		√	√	√	AN	√					√	
281	thamari	24		p1l1		√		√		√	√	√		√		√			√	
282	veni	22	√	p1l1		√		√		√	√	√		√					√	
283	valarmathi	31	√	p1l1		√		√		√	√	√	AN	√		√			√	
284	salthi priya	28	√	p2l2		√		√		√	√	√		√		√			√	
285	annam	30		p3l3	ms/mr	√		√		√	√	√		√					√	
286	sukanya	25		p3l3	gdm		√	√		√										
287	leka	22	√	p1l1		√		√		√	√		AN			√			√	Pain
288	radha	19		p1l1		√		√			√					√			√	
289	meena	23	√	p1l1	outlet	outlet		√		√				√		√			√	
290	lakshmi	20	√	p1l1		√			√		√				√					
291	sudha	22		p1l1		√			√				AN				√		√	
292	mohanaa	33		p1l1a1			√	√			√			√					√	
293	nagu	26	√	p2l2	seizure disorder,ln	√		√		√	√	√		√						
294	lakshmi	27	√	p1l1		√		√		√	√	√		√		√			√	
295	saranya	29		p2l2	anaemia	√			√			√	AN				√		√	
296	thenmoli	24	√	p1l1		√			√		√	√		√		√			√	
297	muthu	23	√	p1l1			√	√			√	√	AN	√		√			√	
298	priya	21		p1l1			√	√			√	√		√					√	
299	mani	29	√	p1l1	pih		√	√			√	√		√			√		√	
300	megalai	36		p3l3	htn	√		√		√				√						
301	nandhini	20	√	p1l1			√	√		√					√	√				
302	ameena	22	√	p1l1		√		√			√		AN						√	
303	kanimoli	20	√	p1l1			√	√			√			√					√	
304	revathi	24	√	p1l1			√	√			√			√				√	√	
305	raji	24		p1l1	anaemia		√	√		√	√			√		√		√		
306	anitha	20		p1l1a1		√		√						√		√			√	
307	sharmila	24	√	p1l1			√	√			√		AN	√		√			√	
308	revathy	21	√	p1l1		√		√		√	√		AN	√						
309	sri devi	21		p1l1a1		√		√		√	√			√					√	
310	deepa	30		p3l3	anaemia	√		√		√					√					
311	raji	22	√	p1l1		√		√		√				√					√	

312	venmathi	26	√	p1l1		√		√		√	√	√	AN	√					√	
313	rajeshwari	24		p1l1		√		√		√	√	√		√		√			√	
314	brindha	22	√	p1l1		√		√		√	√	√		√					√	
315	gomathi	31	√	p1l1		√		√		√	√	√		√		√			√	
316	muthumari	28	√	p2l2		√		√		√	√	√		√		√			√	
317	jthi	21		p2l2	seizure disorder,In	√		√		√	√	√	AN	√		√			√	
318	chellama	25		p2l2	MR grade 1		√	√		√	√	√							√	
319	vanitha	27	√	p1l1			√	√			√	√		√			√		√	
320	anadhi	19		p1l1		√		√			√	√		√					√	
321	karthiga	25		p1l1		√		√					AN			√				
322	bveenitha	24	√	p2l2		√		√		√	√			√			√			
323	meenakshi	22	√	p1l1		√		√			√			√		√				
324	pandi	20		p1l1		√			√		√	√					√		√	
325	gayathiri	23		p1l1		√			√			√	AN	√				√	√	
326	sophiya	23	√	p1l1		√			√		√	√		√		√			√	
327	sumathi	28	√	p1l1		√		√			√	√	AN	√		√			√	
328	alagumani	25	√	p2l2		√		√			√	√		√		√			√	
329	samudirakani	29	√	p1l1		√		√			√	√		√		√				
330	jyothi	19		p1l1	anaemia		√	√		√	√	√		√					√	
331	shanthi	22	√	p1l1	anaemia	√		√		√	√	√	AN	√					√	
332	karunya	24		p2l2	polio	√		√		√	√	√		√					√	
333	vimala	21	√	p1l1			√	√			√	√		√					√	
334	valarmathi	22	√	p1l1			√	√			√	√		√					√	
335	sumathi	33		p1l1a1			√	√			√	√		√					√	
336	kavitha	26	√	p2l2	seizure disorder,In	√		√		√	√			√						
337	vijaya	27	√	p1l1		√		√		√	√	√	AN	√		√			√	
338	meena	29		p2l2	anaemia	√			√			√					√		√	
339	anushya	24	√	p1l1		√			√		√	√	AN	√		√			√	
340	jeyabala	23	√	p1l1			√	√			√	√	AN	√		√			√	
341	aarty	21		p1l1			√	√			√	√		√					√	
342	alaguroja	29	√	p1l1	pih		√	√			√	√		√			√		√	
343	vali	36		p3l3	htn	√		√		√		√		√						
344	nbethammal	31	√	p1l1		√		√		√	√	√		√		√			√	
345	kangavalli	24	√	p2l2		√		√		√	√	√		√		√			√	
346	kaleeshwari	30		p2l2	seizure	√		√		√	√	√	AN	√		√			√	

					disorder,ln															
347	chitra	31		p2l2	MR grade 1		√	√		√	√	√	AN						√	
348	latha	27	√	p1l1			√	√			√	√		√			√		√	
349	panju	19		p1l1		√		√			√	√		√					√	
350	suganya	25		p1l1		√		√								√				
351	aarumugam	24	√	p2l2		√		√		√	√			√			√			
352	mohana priya	22	√	p1l1		√		√			√		AN	√		√				
353	maliga	20		p1l1		√			√		√	√					√		√	
354	indumathi	21		p2l2			√	√			√	√		√		√			√	
355	muthu biwi	21		p2l2			√	√			√	√	AN	√		√			√	
356	poomari	21		p2l2			√	√			√	√		√		√			√	
357	madhu	21		p2l2			√	√			√	√		√		√			√	
358	mathi	21		p2l2			√	√			√	√	AN	√		√			√	
359	anna kamu	21		p2l2			√	√			√	√	AN	√		√			√	
360	saradha	21		p2l2			√	√			√	√	AN	√		√			√	
361	mariammal	21		p2l2			√	√			√	√		√		√				
362	bharathi	21		p2l2			√	√			√		AN	√		√				
363	banumathi	21		p2l2			√	√			√		AN	√		√				
364	sathya vani	21		p2l2			√	√			√			√		√				
365	revathy	21		p2l2			√	√			√			√		√				
366	panju	21		p2l2			√	√			√			√		√				
367	sndhya	22	√	p1l1		√		√		√	√	√				√			√	
368	sathya vani	19		p1l1		√		√			√	√				√				
369	sakthi pruya	23	√	p1l1	outlet	outlet		√		√		√	AN	√		√			√	
370	parvathi	20	√	p1l1		√			√			√								
371	priya	22		p1l1		√			√								√			
372	usha	33		p1l1a1			√	√			√			√						
373	anushya	26	√	p2l2	seizure disorder,ln	√		√		√	√		AN	√						
374	banumathi	27	√	p1l1		√		√		√	√			√		√			√	
375	bhavani	29		p2l2	anaemia	√			√								√		√	
376	muthupechi	29		p2l2	anaemia	√			√				AN				√		√	
377	anitha	24	√	p1l1		√			√		√	√	AN	√		√			√	
378	megalai	23	√	p1l1			√	√			√	√	AN	√		√			√	
379	selva priya	21		p1l1			√	√			√	√		√					√	
380	kala	29	√	p1l1	pih		√	√			√	√		√			√		√	
381	vedha	36		p3l3	htn	√		√		√				√						

382	uthra	20	√	p1l1		√			√	√					√	√				
383	vidhya	22	√	p1l1		√		√			√	√							√	
384	vali	20	√	p1l1			√	√			√	√		√					√	
385	leka	24	√	p1l1			√	√			√	√	AN	√				√	√	
386	priya	24		p1l1	anaemia	√		√		√	√	√		√		√		√		
387	madhu	29	√	p1l1			√	√			√	√		√	√	√				Pain
388	padma	31	√	p1l1	pih		√	√		√	√	√		√		√			√	
389	pushpa	19	√	p1l1	pih		√	√				√	AN	√			√			Bleeding
390	swarna	29	√	p1l1	pih		√	√			√			√			√		√	
391	gowri	36		p3l3	htn	√		√		√				√						
392	rajeshwari	20	√	p1l1		√			√	√					√	√				
393	sindhya	22	√	p1l1		√		√			√		AN							
394	syamala	20	√	p1l1			√	√			√			√						
395	shanthi	24	√	p1l1			√	√			√			√				√		
396	booma devi	24		p1l1	anaemia	√		√		√	√	√		√		√		√		
397	chandra	29	√	p1l1			√	√			√	√		√	√	√				Pain
398	antony	31	√	p1l1	pih	√		√		√	√	√		√		√			√	
399	kangavali	19	√	p1l1	pih		√	√				√	AN	√			√			Bleeding
400	latha	36		p3l3	htn	√		√		√		√		√						
401	anitha	20	√	p1l1			√	√		√		√			√	√			√	
402	sara	22	√	p1l1		√		√			√	√							√	
403	viji	20	√	p1l1			√	√			√	√		√					√	
404	bala gowri	24	√	p1l1			√	√			√	√	AN	√				√		
405	karthiga	24		p1l1	anaemia		√	√		√	√	√	AN	√		√		√		
406	pon meenaja	20		p1l1a1		√		√				√		√		√			√	
407	rathna	24	√	p1l1			√	√			√	√		√		√			√	
408	anitha	23	√	p1l1		√		√		√	√	√		√						
409	kaniga	21		p1l1a1		√		√		√	√	√	AN	√					√	
410	ramya	30		p3l3	anaemia	√		√		√		√	AN		√					
411	maheshwari	22	√	p1l1		√		√		√		√	AN	√					√	
412	sundaravalli	26	√	p1l1		√		√		√	√	√	AN	√					√	
413	karthishwari	24		p1l1		√		√		√	√	√		√		√			√	
414	radha	22	√	p1l1		√		√		√	√	√		√					√	
415	lakshmi	31	√	p1l1		√		√		√	√	√		√		√			√	
416	munniyammal	28	√	p2l2		√		√		√	√	√		√		√			√	
417	manicka priya	30		p3l3	ms/mr	√		√		√	√	√	AN	√					√	
418	jeevitha	25		p3l3	gdm		√	√		√		√								

419	kaaleeshwri	29		p2l2	anaemia	√			√			√					√		√		
420	sundari	24	√	p1l1		√			√		√	√	AN	√		√			√	
421	karthika	23	√	p1l1			√	√			√	√		√		√			√	
422	ranjitha	21		p1l1			√	√			√	√		√					√	
423	kokila	29	√	p1l1	pih		√	√			√	√		√			√		√	
424	yosafsalim	36		p3l3	htn	√		√		√			AN	√						
425	chellamuthu	20	√	p1l1			√	√		√					√	√				
426	kalaiselvi	22	√	p1l1		√		√			√									
427	anandhi	20	√	p1l1			√	√			√	√		√					√	
428	priya	24	√	p1l1			√	√			√	√	AN	√				√		
429	priyanka	24		p1l1	anaemia	√		√		√	√	√		√		√		√		
430	paandi	20		p1l1a1		√		√				√		√		√			√	
431	amutha	24	√	p1l1			√	√			√	√	AN	√		√			√	
432	panchavarnam 25	25	√	p1l1		√		√		√	√	√	AN	√						
433	thuvari	21		p1l1a1		√		√		√	√	√	AN	√					√	
434	usha	30		p3l3	anaemia	√		√		√					√					
435	parvathy	22	√	p1l1		√		√		√		√		√					√	
436	lakshmi	26	√	p1l1		√		√		√	√	√		√					√	
437	raaku	24		p1l1		√		√		√	√	√		√		√			√	
438	easwari	22	√	p1l1		√		√		√	√	√	AN	√					√	
439	manjula	31	√	p1l1		√		√		√	√	√		√		√			√	
440	ramu	28	√	p2l2		√		√		√	√	√		√		√			√	
441	rajalakhshmi	21		p2l2	seizure disorder,ln		√	√		√	√	√		√		√			√	
442	palani	25		p2l2	MR grade 1	√		√		√	√	√	AN						√	
443	suganthi	27	√	p1l1			√	√			√	√		√			√		√	
444	veerammal	19		p1l1		√		√			√	√		√					√	
445	rekha	25		p1l1		√		√								√				
446	umadevi	24	√	p2l2		√		√		√	√			√			√			
447	muthulaksmi	22	√	p1l1		√		√			√		AN	√		√				
448	chitra	20		p1l1		√			√		√	√					√		√	
449	stella	23		p1l1		√			√			√		√				√	√	
450	thenmozhi	23	√	p1l1		√			√		√	√		√		√			√	
451	rakayee	28	√	p1l1		√		√			√	√		√		√			√	
452	revathy	25	√	p2l2		√		√			√	√	AN	√		√			√	
453	mlathi	29	√	p1l1		√		√			√	√		√		√			√	

454	selvamani	19		p1l1	anaemia	√		√		√	√	√		√						
455	muthumeena	22	√	p1l1	anaemia		√	√		√	√	√		√					√	
456	Mani	24		p2l2	polio	√		√		√	√	√		√						
457	renuka	21	√	p1l1			√	√			√	√	AN	√					√	
458	boopathi	22	√	p1l1			√	√			√	√		√					√	
459	asanbanu	33		p1l1a1			√	√			√			√					√	
460	priya	26	√	p2l2	seizure disorder,ln	√		√		√	√			√						
461	poongothai	27	√	p1l1		√		√		√	√		AN	√		√			√	
462	govindh	29		p2l2	anaemia	√			√								√		√	
463	shanthi	24	√	p1l1		√			√		√			√		√			√	
464	renuka	23	√	p1l1			√	√			√			√		√			√	
465	vijaya	21		p1l1			√	√			√			√					√	
466	pavitha	29	√	p1l1	pih		√	√			√		AN	√			√		√	
467	saritha	36		p3l3	htn	√		√		√				√						
468	deivarani	31	√	p1l1		√		√		√	√			√		√			√	
469	muneehwari	24	√	p2l2		√		√		√	√			√		√			√	
470	yagalatha	30		p2l2	seizure disorder,ln		√	√		√	√			√		√			√	
471	kowsala	31		p2l2	MR grade 1	√		√		√	√								√	
472	isaki	27	√	p1l1			√	√			√		AN	√			√		√	
473	preethi	19		p1l1		√		√			√			√					√	
474	navaneethan	25		p1l1		√		√								√				
475	jeevitha	24	√	p2l2		√		√		√	√		AN	√			√			
476	saritha	22	√	p1l1		√		√			√		AN	√		√				
477	ragavi	20		p1l1		√			√		√		AN				√			
478	manjula	21		p2l2			√	√			√			√		√				
479	kalaivani	21		p2l2			√	√			√			√		√				
480	syed ali	21		p2l2			√	√			√	√		√		√				
481	chandra	21		p2l2			√	√			√	√		√		√			√	
482	shabana	21		p2l2			√	√			√	√		√		√			√	
483	mercy	21		p2l2			√	√			√		AN	√		√				
484	purka	21		p2l2			√	√			√		AN	√		√				
485	satheshwari	21		p2l2			√	√			√		AN	√		√				
486	sema	21		p2l2			√	√			√			√		√				
487	jasebeena	21		p2l2			√	√			√			√		√				
488	veerammal	21		p2l2			√	√			√			√		√				

489	banumathy	21		p2l2			√	√			√			√		√				
490	sasikalai	21		p2l2			√	√			√		AN		√	√				
491	rani	21	√	p1l1		√		√		√	√	√				√			√	
492	angamalla	19		p1l1		√		√			√	√				√				
493	beevi	23	√	p1l1	outlet	outlet		√		√		√		√		√				Pain
494	raji	20	√	p1l1		√			√			√	AN		√	√			√	
495	saranya	22		p1l1		√			√							√				
496	hema	33		p1l1a1			√	√			√			√		√				Pain
497	hemalatha	26	√	p2l2	seizure disorder,ln	√		√		√	√			√					√	
498	anitha	27	√	p1l1		√		√		√	√		AN	√		√			√	
499	kavitha	29		p2l2	anaemia		√	√									√			
500	nithya	29		p2l2	anaemia	√			√					√			√			

Ref. No. 68/E4/2/2014

Govt. Rajaji Hospital,
Madurai.20. Dated: 26.02.2014

Institutional Review Board / Independent Ethics Committee.
Captian. Dr. B. Santhakumar, M.D., (F.M.,)
Dean, Madurai Medical College &
Govt Rajaji Hospital, Madurai 625020. **Convenor**

Sub: Establishment-Govt. Rajaji Hospital, Madurai-20-
Ethics committee-Meeting Minutes- for January 2014
Approved list -regarding.

The Ethics Committee meeting of the Govt. Rajaji Hospital, Madurai was held on 20.1.2014, Monday at 10.00 am to 12.00.noon at the Anaesthesia Seminar Hall, Govt. Rajaji Hospital, Madurai. The following members of the committee have attended the meeting.

1.Dr. V. Nagarajan, M.D., D.M (Neuro) Ph: 0452-2629629 Cell.No 9843052029	Professor of Neurology (Retired) D.No.72, Vakkil New Street, Simmakkal, Madurai -1	Chairman
2. Dr.Mohan Prasad , M.S M.Ch Cell.No.9843050822 (Oncology)	Professor & H.O.D of Surgical Oncology(Retired) D.No.72, West Avani Moola Street, Madurai -1	Member Secretary
3. Dr. Parameswari M.D (Pharmacology) Cell.No.9994026056	Director of Pharmacology Madurai Medical College	Member
4. Dr.S. Vadivel Murugan, MD., (Gen.Medicine) Cell.No 9566543048	Professor of Medicine Madurai Medical College	Member
5. Dr.S. Meenakshi Sundaram, MS (Gen.Surgery) Cell.No 9842138031	Professor & H.O.D of Surgery Madurai Medical College	Member
6. Mrs. Mercy Immaculate Rubalatha, M.A., Med., Cell. No. 9367792650	50/5, Corporation Officer's quarters, Gandhi Museum Road, Thamukam, Madurai-20	Member
7. Thiru.Pala. Ramasamy , BA.,B.L., Cell.No 9842165127	Advocate, D.No.72.Palam Station Road, Sellur, Madurai -2	Member
8. Thiru. P.K.M. Chelliah ,B.A Cell.No 9894349599	Businessman, 21 Jawahar Street, Gandhi Nagar, Madurai-20	Member

The following Project was approved by the committee

..2..

Name of P.G.	Course	Name of the Project	Remarks
Dr.S. Ramyajeyalakshmi	PG in M.S., (O&G) Madurai Medical College and Government Rajaji Hospital, Madurai.	Clinical outcomes of Post Partum insertion of intrauterine contraceptive Devices	Approved

Please note that the investigator should adhere the following: She/He should get a detailed informed consent from the patients/participants and maintain it Confidentially.

1. She/He should carry out the work without detrimental to regular activities as well as without extra expenditure to the institution or to Government.

2. She/He should inform the institution Ethical Committee, in case of any change of study procedure, site and investigation or guide.

3. She/He should not deviate the area of the work for which applied for Ethical clearance.

She/He should inform the IEC immediately, in case of any adverse events or Serious adverse reactions.

4. She/He should abide to the rules and regulations of the institution.

5. She/He should complete the work within the specific period and if any

Extension of time is required He/She should apply for permission again and do the work.

6. She/He should submit the summary of the work to the Ethical Committee on Completion of the work.

7. She/He should not claim any funds from the institution while doing the work or on completion.

8. She/He should understand that the members of IEC have the right to monitor the work with prior intimation.

Member Secretary Chairman
Ethical Committee

26.2.14 DEAN/Convenor
Govt. Rajaji Hospital,
Madurai- 20.

6/2/14

To
The above Applicant
-thro. Head of the Department concerned

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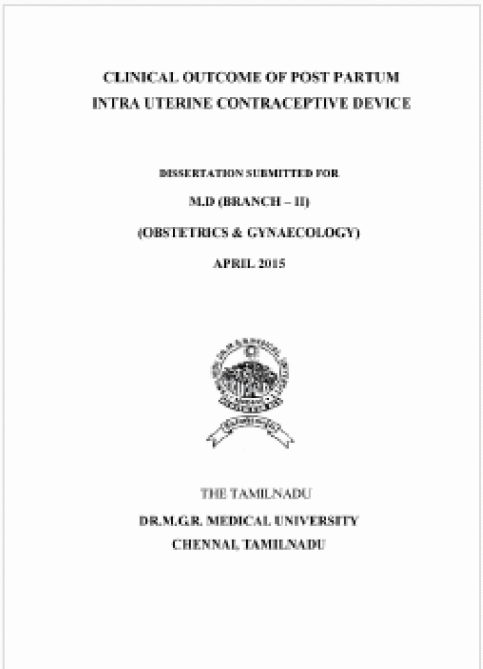

CLINICAL OUTCOME OF POST PARTUM
INTRA UTERINE CONTRACEPTIVE DEVICE

DISSERTATION SUBMITTED FOR
M.D (BRANCH – II)
(OBSTETRICS & GYNAECOLOGY)
APRIL 2015

THE TAMILNADU
DR.M.G.R. MEDICAL UNIVERSITY
CHENNAI, TAMILNADU

CLINICAL OUTCOME OF POST PARTUM INTRA UTERINE CONTRACEPTIVE DEVICE

DISSERTATION SUBMITTED FOR

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